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The AVALON HILL GENERAL

The Game Players Magazine

The Avalon Hill GENERAL is dedicated to the presentation of authoritative articles on the strategy, tactics, and variation of Avalon Hill games of strategy. Historical articles are included only inasmuch as they provide useful background information on current Avalon Hill titles. THE GENERAL is published by the Avalon Hill Company solely for the cultural edification of the serious game aficionado, in the hopes of improving the game owner's proficiency of play and providing services not otherwise available to the Avalon Hill game buff.

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Avalon Hill Philosophy Part 60

COMING OF AGE

The growing pains of the past year have apparently not come to a halt. No sooner had we gotten used to the acquisition of 3M, DIPLOMACY, and SPORTS ILLUSTRATED then we were shocked by the addition of yet another game company. Aladdin Industries, a big name in housewares, diversified into the game business four years ago due largely to their acquisition of *TRIPPLES*—a fantastic abstract 2 and 4 player game of maneuver with all the inherent play qualities that made *MASTERMIND* and *OTHELLO* overnight bestsellers. Aladdin backed the game with national advertising which enabled them to sell several hundred thousand copies annually. Yet, without a strong line of supporting titles TV promotion proved too costly and Aladdin lost money on the venture and soon wanted to divest itself of its game line. In steps AH to add it to our burgeoning line of all purpose strategy games—now 82 strong and still growing.



TRIPPLES comes in two forms; a deluxe version with smooth polished hard maple tiles which sells for \$10 and a travel set made in plastic which retails for \$4.50. Other games making the transition to the AH line include *BARRIER* (\$6.00), *PERPLEXUS* (\$9.00), *TOTALLY* (\$6.00) and *BALI* (\$3.00). *BARRIER* and *PERPLEXUS* are abstract games of maneuver made of molded plastic. *TOTALLY* is a numbers game that pits players against each other and a time limit—in much the same manner as our *TUF* & *TUFABET* games. *BALI* is a classic card game that has been around for 20 years and is a cross section of *SCRABBLE*, crosswords, cards, and solitaire.

The acquisition of Aladdin will probably bring groans of protest from wargamers who fear that our attention will be distracted from their primary interest: wargames. We've already gotten a taste of this attitude in our mail presumably sparked by an erroneous report in a competing magazine that we were utilizing our in-house design staff exclusively on non-wargame titles while turning to outsiders for wargame submissions. Not so! The exact opposite is closer to the truth. All of the design personnel at AH are working almost fulltime on wargames—12 to be exact are in various stages of development. What work we do on non-wargames is generally reserved for our off-hours get-togethers. We are fortunate in that respect—our designers are not just historians or simulation nuts—we all share a common interest in gaming and whereas working on wargames is hard and time consuming, meticulous

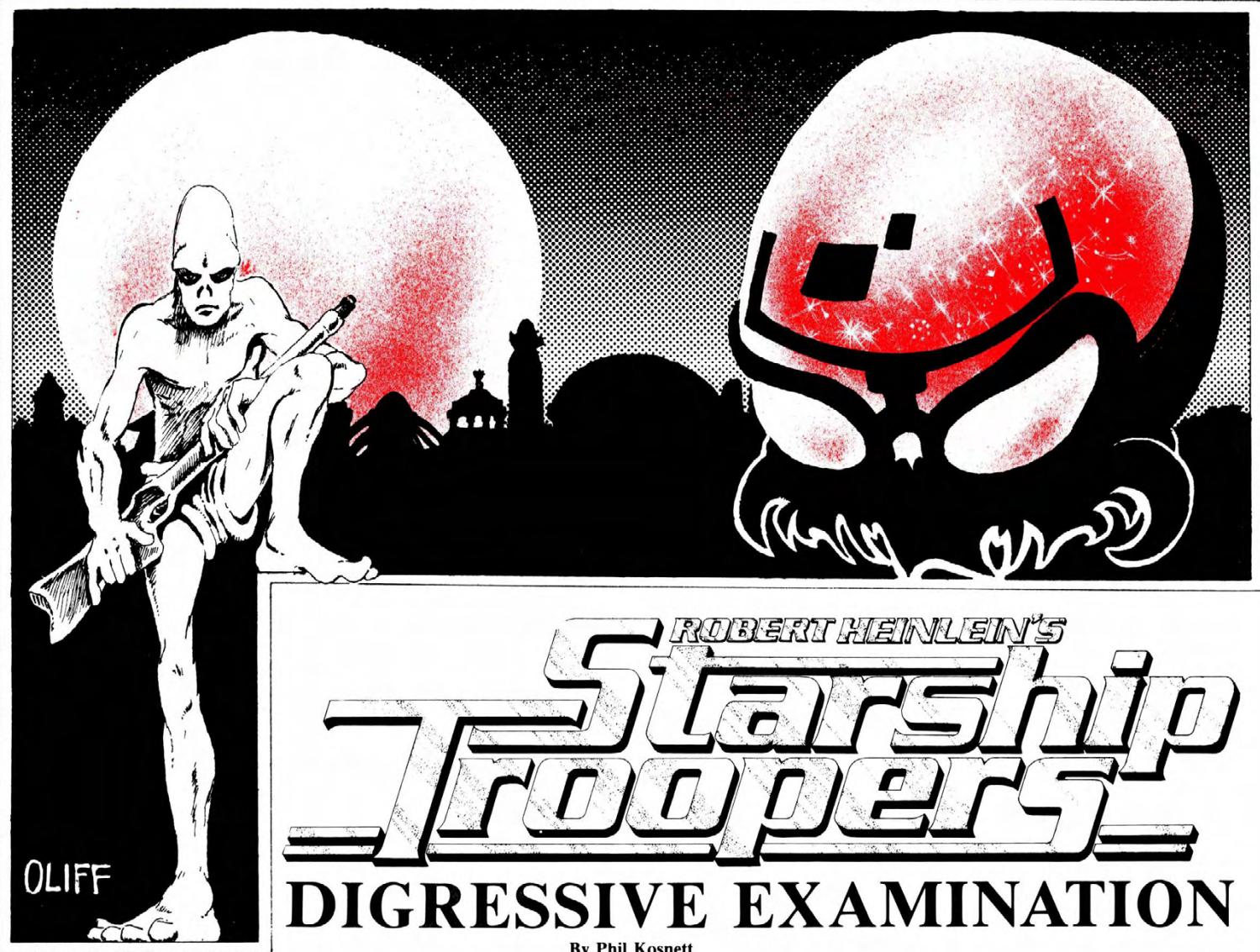
work the non-wargames tend to be quick, entertaining, and a fun diversion from the more serious research of a wargame. To date, our efforts in the non-wargame design field have been largely a matter of playtesting, improving and clarifying outside submissions. Getting *BOXCARS*, *SPEED CIRCUIT*, and *WIN, PLACE & SHOW* ready for release has been more fun than work. Indeed, *BOXCARS* is the only game I can recall that the entire design staff fought to play on their own time!

The trade response to our acquisitions has been overwhelmingly favorable. We're coming off our best year ever with prospects for big gains in 1977. Wholesalers have welcomed the opportunity for "one stop shopping" that we now present. Where they once had to place qualifying orders with 5 separate companies they now find it easier and cheaper to get the goods from one source. This makes it easier for them to place qualifying reorders to replenish the hot selling items in each line whereas before they'd have to wait until they had enough back orders to justify another order with AH. In a sense this gives us the clout of 5 combined little companies as opposed to just one. This keeps Avalon Hill games (wargames and non-wargames alike) in a better restock situation and on the shelves even during non-peak calendar periods for games. With the expanded line almost any game specialty shop can qualify for our best terms by ordering a case of each title. Each line helps sell the other thus netting a substantial overall increase in sales of wargames.

Increased sales have benefitted the entire operation in turn. Our manufacturing capabilities have increased, as has our warehouse, clerical, and mail order personnel making the entire operation more efficient. R&D is likewise benefitting by added staff, facilities, and access to better quality components. In the future you'll see us doing some unheard of things with mapboards, counters and three dimensional components. We're already doing some heretofore unheard of innovations in mapboard presentation.

Most noteworthy of the new employees at Avalon Hill these days is none other than Brooks Robinson, the cinch Hall of Fame 3rd baseman of the Baltimore Orioles. Now in probably his last season with the Orioles, the 16 time Golden Glove winner and 1970 MVP, joins Avalon Hill as Marketing Coordinator—not just a licensed promotional figure. Besides autograph sessions at trade shows, Brooks will personally call on major buyers in big league cities as the Orioles tour the U.S. He'll also make guest appearances at AH outlets to autograph games and generally talk baseball. The addition of Brooks, the SI game line, and regular advertisements in the pages of *SPORTS ILLUSTRATED* should enable us to make big strides in the sports game field. And although Brooks isn't exactly a master game player (when asked to explain Aladdin's *TRIPPLES* at the Houston Hobby Show he quipped that he had more experience with

Continued on Page 26, Column 2



ROBERT HEINLEIN'S *Starship Troopers* DIGRESSIVE EXAMINATION

By Phil Kosnett

As a fanatical fan of both science fiction and wargames, I pant a little whenever a promising SF game is announced. With *STARSHIP TROOPERS* I was even more impatient than usual—*SST* is one of my favorite novels and tactical land games are my cup of tea. As *SST* was delayed again and again my impatience grew; I think I was the first one to buy *SST* at ORIGINS II. It was certainly worth the wait. *SST* doesn't flaunt an array of innovative mechanics, but it does blend a lot of familiar concepts to produce a balanced battle challenging to each side, and does remain remarkably faithful to Heinlein's novel.

BACKGROUND

STARSHIP TROOPERS is a Man-to-Alien level tactical game of surface and subsurface warfare in the 22nd Century. The belligerents are the Terrans (that's us), the Humanoid "Skinnies", and the Pseudo-Arachnid "Bugs". The scenarios cover primarily seize and hold actions. Terran Mobile Infantry and Engineers are dropped or ferried from orbit to a planetary surface. The Skinnies or Bugs are the defenders. The Skinnies are very similar to Terrans in physiology, technology, and sociology; they live in cities and exist as individual personalities. The Bugs, on the other hand, are hive insects who live in deep tunnel networks. Several Warrior and Worker Bugs are

controlled by an immobile Brain which remains securely below ground.

The Terran Mobile Infantryman wears powered armor, which makes him far stronger and faster than an unsuited man, as well as providing short distance flight (jump) capability and a sealed environment. The M.I. are dropped from orbit in capsules which burn off as heat shields, then parachute to the ground. Weaponry consists of side arms (hand flamers), rocket launchers (HE and nuclear), demolition charges and nerve gas.

The Skinnies fight with infantry small arms and armored vehicles firing missiles and energy beams. Strongpoints are vital to humanoid defensive tactics. The Bugs deploy in a secret underground tunnel system. The Warriors, often screened by decoy Workers, fight with personal beam weapons and armored beam vehicles, while HE and nuclear mines are used to a great extent. The Bugs in the game are defense oriented, with limited counterattack capability.

the game, his personal attack strength healthy and his speed with extended jump thrice that of the fastest enemy unit. He can take on a single Skinny Warrior with ease, although against a Bug Warrior unit a duel is risky. A Marauder's two biggest advantages are defense strength and the extended jump phase: he can jump into an enemy's hex, burn it down, and pop three hexes out of range before the bad guys can react.

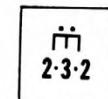
2-3-10

Scout: The Scout doesn't have the hide or the personal arms to last long in close combat. He does have the ability to run like hell when he runs into trouble (presuming trouble doesn't burn him first). Fifteen hexes is a long way to go in one turn. The Scout's job is, as one might suppose, to scout; to act as point man in an advance. A trigger-happy Bug player may pop some units out of the tunnels to prematurely burn a Scout. If he survives he can escape; if he dies the loss is minimal and the enemy is suckered into the open. The Scout units can also serve as a quick-response reserve, if armed with ranged weapons, delayed action charges, and nerve gas and held in 'safe' areas.



TERRAN UNITS

Marauder: The Marauder is the basic infantryman, the doggie, or the proverbial grunt. His defense strength is the highest for a personnel unit in



Command: Because there's no Command Control system in the game, the Command units are especially valuable only by way of the victory points they represent. Possessing the defense strength of a Marauder and the speed of a Scout, a Commander can take care of himself. He still can't fight Bugs alone, but he has the armor to last a little longer and the speed to make a graceful exit. A Commander is a good man to give heavy weapons to, as his weak attack strength becomes meaningless and his superior speed means he can move from trouble point to trouble point, acting as a "fire brigade". He can serve as a Scout but is much less expendable due to victory point value, not to mention psychological reasons.

	1	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

HE Rocket Launcher: This is the standard M.I. heavy weapon. About a third of the M.I. normally carry them. It is probably the best heavy weapon because it has no ammo limitations. Don't think the increase in firepower is all that counts; the six-hex range means an M.I. can cover 126 hexes without moving, keeping the enemy at a comfortable distance. An HE Launcher attacks a Bug Warrior at 3-1, the optimum attack.

	2	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

Nuke Rocket Launcher: Devastating firepower notwithstanding, nuke launchers are of limited use because of their four-shot ammo limit. The Nuke is best saved for the nastiest enemy units, the heavy weapons, or against a stack of Bugs. It affects all units adjacent to the impact hex, so a single Nuke shot can break up any Bug concentration.

	3	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

Delayed Action, Proximity: The DAP is much like a satchel charge. It is dropped in a hex and attacks any enemy unit in the hex. The best way to use it is to pop into the enemy hex, drop the DAP, and hop out while the DAP mops up the enemy. You can't get hurt, and at worst, you only waste a bomb.

	4	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

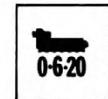
Delayed Action, Remote: This is like a Claymore mine in that it's detonated by a nearby M.I. instead of blowing automatically. It's more powerful and you can use it selectively, unlike the DAP, which often wastes itself against Workers.

	5	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

Heavy Nerve Gas: Because it only works in tunnels, the HNG is only used when the Terrans are going underground or to block a breach hex. It kills any Bug unit except the beam AFV. It is very effective in its element, but useless above ground.



Combat Engineer Squad: Useless in a firefight because they lack powered armor, their value is in the special demolition charges they can emplace. Engineers must be escorted to remain alive: KIA or WIA wipes out the squad.



Air Car: The engineers' mobility. Used like transport units in any traditional game. The car has a stronger defense strength than the squad in the open, but any combat result (except STUN) wipes out the air car and the squad. They are fast, though.



HE Demo, Nuke Demo: Functionally similar. They're useful only against subterranean units, and they destroy all tunnels. The Nuke affects seven hexes and also destroys Bug Brains. The Bug tunnel system can be dislocated by a few charges, though seldom will Bugs be killed by the charges; they have two turns to run. But Brains can't run.



	6	HE				
4-6-6	NUC	1	2	3	4	
	DAP	1	2	3	4	
LD	DAR	1	2	3	4	
	HNG	1	2	3	4	

Listening Device: Carried by an M.I., the LD is the most common means of detecting Bug tunnels. An LD detects the nearest tunnel within four hexes. A single LD by itself is not too useful. Several LD's, working together, however, can yield a surprisingly clear picture of a complex tunnel pattern. The LD is best carried by a Scout or Commander, so it can be shuttled around quickly.



Special Talent: The game's weakest—and sometimes most important—unit is the ESP Special Talent. Carried by an Air Car, he can detect any and all tunnels within ten hexes, but must be exposed and on the ground to operate. He should be very closely guarded. His life expectancy will be short when playing an experienced opponent. Yet, his presence places the Alien player in jeopardy. If left alone, the Talent exposes the tunnels, breaches, and Brain, Queen and prisoner cells in painfully exact detail. If the Talent is attacked, the Alien player will probably lose all of his attacking units to a Terran ambush. The Special Talent is the only Terran unit whose mere presence in an area demands an immediate and absolute response from the Arachnid player.



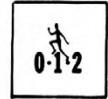
Retrieval Boat: The Terran attack has failed. Casualties are mounting as pressure from the enemy increases. Bugs are busting out all over. Then a beautiful sound crackles over each M.I.'s radio: "To the everlasting glory of the infantry, shines the name, shines the name, of Rodger Young!" A rocket beacon plows into the ground, and the retrieval boat soon follows to pick up the survivors. The retrieval boat is used to evacuate the invasion force. Its approximate landing location is decided before the

game, subject to drift during its descent. In most cases men not retrieved by game's end are considered captured, which is worse than being dead. The Bugs have only one shot at the Boat before it lifts. Likewise, the Terrans have only one turn to reach the Boat after it lands; those who don't make it are left behind.



SKINNY UNITS

Warrior: Oh, well. It's easy to see why the Skinnies lost their war with the Terrans. On the face of it, the Humanoid forces are weak. They require the utmost skill in deployment and stubborn tenacity in combat. In the hands of an expert, resourceful player, however, they can be surprisingly effective.



Worker: The Worker is much like a decoy, at least that's how it is most effective. Until a Terran enters a hex, Workers and Warriors are indistinguishable. A Worker can look and act like a potential threat, forcing the Terran to divert some attention to it. Superficially meaningless, they can be very effective "misdirection" units in the hands of experienced players.



Heavy Weapon, Beam: Hefty attack strength, good armor, speed of sorts and a six-hex range makes this an effective unit. Against M.I. or Engineers the Beam AFV has little to worry about. Against rocket launchers and DAP's, the Beam AFV is dead. But it'll take somebody with it . . .



Heavy Weapon, Missile: With a ten-hex range, the Missile AFV often has two shots before the Terrans close in, and the added power helps too. The defense strength is a problem, but careful placement can offset that disadvantage. Dodging in and out of city hexes, the Missile unit can be an extremely effective "sniper".



Strongpoint: An indispensable unit. It uses its defense strength for any units stacked in the hex; if it is destroyed, however, they are too. Only Missile AFV's and Warriors should be protected by Strongpoints. The Beam AFV is best not tied down to such a static position.



ARACHNID UNITS

Warrior: This is a good unit. ("It takes a minimum of a year to train a private to fight and to mesh his fighting with his mates; a Bug warrior is hatched with this ability . . .") It can best a single Marauder most of the time. It can't move quickly above ground, but in its tunnel element it can outmaneuver and outfight the M.I. The Warrior's main problem is that it carries no heavy weapons and lacks the speed to close with the enemy. Once it loses the advantage of surprise it has from popping

out of the tunnels, it can fight only if the Terrans decide to close.



Worker: It serves the same purpose as the Skinny Worker. Yet, more importantly, its effect is greater than the Skinny "misdirection": hoards of Bug Worker units popping-up out of the ground very suddenly can cause panicky "over-response" by the M.I. player thus setting him up for the kill with heavy weapons.



Heavy Weapon, Beam: A very effective weapon, though it tends to draw fire. It still can't catch a Terran, but it can outrun a Skinny. Alone, it can launch a 3-1 attack on a Marauder. The problem is that there are so very few of them. WHEN and HOW to commit heavy weapon units is the most critical decision for the Arachnid player. They should only be used when the pay-off consists of frying at least three Terran units AND chances of survival are at least 60%.

HE Demo: Call it a land mine. Emplaced adjacent to tunnel hexes, it is used like the DAR to attack enemy units as soon as they enter the hex at the Bug's discretion. It is powerful, but the Terran has to enter the hex for it to be used; it can't be moved. On the other hand, it can't be detected, either. Whenever ANY Terran unit enters an HE Demo hex, blow the demo charge. An unexploded demo charge at the end of the game is a wasted weapon. Also, emplace them in "clumps" and not in lines. If positioned linearly, exploding one charge gives the Terran player a safe route through the line of charges.

Nuke Demo: Available in several sizes. More powerful than an HE Demo charge, it has the unfortunate habit of killing nearby Bugs. The Scale 1 Nuke is the basic type, the others sparingly emplaced. An occasional Scale 3 or Scale 6 Nuke charge can be used for "nasty" surprises, but a general mix of sizes is recommended. The great thing about Demos of all kinds is that there is very little the enemy can do to avoid them.

Engineer: This is THE most important Arachnid unit! It is used to repair destroyed tunnel hexes and, most importantly, to build new tunnels. Expanding new tunnels is vital to the Bug tactical arsenal. By expanding tunnel systems, the Bug player increases his ability to CONCENTRATE forces. If the Terran player is only expecting to face two Combat Brain cells in a certain area and the Bug Engineers build new tunnels for two more cells, the Terran player could be zapped real good. In practice, this makes it possible to have ALL FIVE cells tunnel into the city in scenario four by turn three! Use the Engineer unit aggressively. Use it every turn. Never let its abilities go to waste.

TERRAIN

Most of the map is clear terrain, dubbed savannah. In the clear, the Terrans have the biggest advantage, for they can jump around to their hearts' delight. There is no cover, therefore everyone has a clear field of fire for heavy weapons. Better yet for the M.I. is barren terrain (presumably strewn with boulders, ravines, lava flows, etc.) which costs aliens 2 movement points. Bug Warriors and Workers cannot move in barren terrain.

Rough terrain, which represents deeply ravined hills & mountains, costs 3 MP for everybody.

SOLITAIRE TROOPERS

By Jay Reese

STARSHIP TROOPERS is an excellent game for solitaire play, provided certain random factors are introduced into the game.

In the suggestions given below, it is assumed that the solitaire player will take the side of the troopers.

Introducing Random Factors into Tunnel Complexes.

Step 1. Draw five or more tunnel complexes on as many master sheets, using various locations. Place mines. Use colored pencils or pens and give each separate brain a different colored tunnel (for instance A yellow, B blue, C red, and so on).

Step 2. Turn the master sheets over, mix them up, and pull out one at random. Put the rest away sight unseen for future games.

Step 3. Before turning the chosen master sheet over, place an opaque sheet of paper or light cardboard under it, and turn them both over at once so the tunnel complex is completely hidden.

Step 4. Cut a sheet of $8\frac{1}{2} \times 11$ opaque paper to fit the master sheet. At random, cut a circle in it, about the size of a quarter.

Step 5. After you have begun the game, and the troopers have made their initial landing, place the sheet with the cut-out circle on top of the master sheet, pull out the middle opaque sheet that was on the map, and you will have a view of a small portion of the master map. Secure with paper clips. There may or may not be an Arachnid tunnel showing. If there is, place a Breach counter on the corresponding place on the board, and mark the master sheet as well. If not, cut another circle in a different location.

Step 6. Each turn when the Arachnids move, enlarge the circle by cutting a square three hexes on a side along each end of the tunnel that is showing. Make more breaches as necessary.

Step 7. To randomize the Arachnid entry from the Breach, turn all of the counters for that tunnel face down. Roll a die. The number is the number of Bugs emerging from the Breach that turn.

Rules for Arachnid movement and combat: Warriors always move toward the nearest trooper counter. (Exception: One Warrior must always remain within the tunnel or on the Breach.) Automatic Weapons fire at Command troopers first, scouts second, and others taking the lowest number first. Workers shield Automatic Weapons first, Warriors second. Arachnids never retreat (Exception: If troopers are ready to enter a Breach or have already entered it, all Warriors from that tunnel immediately head for the Breach and give battle to any troopers found inside.). A mine will

automatically fire whenever a Trooper counter is on it.

Automatic tunnel extension: Arachnid engineers automatically enlarge tunnels that are visible by extending them further into the visible areas, toward the nearest troopers.

Introducing Random Factors on the Trooper Side.

To guard against a subconscious recollection of possible Arachnid tunnel locations, randomize the drop location(s). Choose six or more possible drop locations and write the hex number of each on a small piece of paper. Take one piece at random and without looking at it, place it in an envelope. Destroy the others without looking at them. (This can be done either before or after the tunnel complexes are drawn). When the game starts and a drop is to be made, open the envelope and use the designated location as the center point of the drop. If there is to be a second drop or soft landing, choose a second piece of paper before destroying them and place it in another envelope.

Randomize the pickup location the same way, to guard against subconscious movement of Arachnid counters toward (or away from) a pickup hex before the turn in which the beacon is to be dropped.

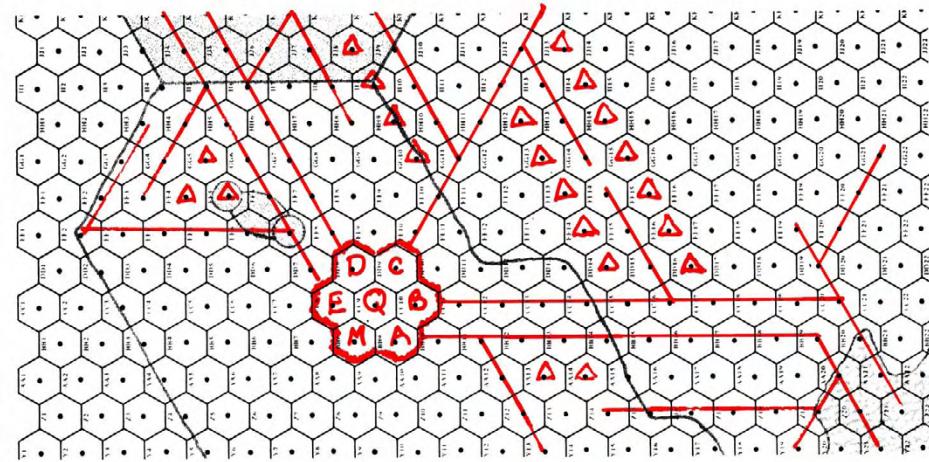
Final Comments.

Enlarging the circle on the paper precludes the use of Special Talent or Listening Devices. It assumes the presence of LD or ST at the circle itself. If you want to make use of ST and/or LD, do not enlarge circles until an ST or LD is present within the circle area. (I have found, however, that doing this works to the detriment of the Arachnids).

Should a tunnel be entered by a trooper, then the circle will automatically have to be cut in the direction the trooper goes.

If you should find that despite these random factors, the Arachnids always lose, alter the victory conditions. For example, in Scenario Five-B, give the Arachnids two points (instead of one) for each MI or CE unit KIA or destroyed.

By using the above ideas, a solitaire player can have an exciting and interesting game. *STARSHIP TROOPERS* is an excellent game for either the solitaire player or a number of players. It introduces new concepts and is an imaginative and very playable game. AVALON HILL is to be congratulated for the new format for the rule booklet, which makes the game easy to play. If you haven't bought one yet, do so when you can.



... AND NOW A WORD FROM YOUR LOCAL PLAYTESTER ...

STARSHIP TROOPERS EXPANSION by David Fram

There are good jobs and there are bad jobs, but playtesting must be characterized as 'bittersweet'. To an avid wargaming fan, it is invigorating to be involved with a game on a very close and personal level from the roughest beginnings to a finished product. While inobvious to other wargamers, a playtester can see the fruits of his labor in many small refinements in the finished game. Playtesting is also a lot of hard work. In the Avalon Hill development system, the emphasis in playtesting is on TESTING. That's quite a bit different from simply playing the game. And for the most part, except for a small mention in the game's credits, it is thankless work. But playtesters make games work. For that, gamers all over the world owe them a generous tip of the hat. Let us go better than that by shedding some limelight on one stalwart playtester, Dave Fram, a displaced Interest Group Baltimore veteran who did yeoman service in developing SST. Let's see what Dave would have added had HE been the designer of record:

Rules Addition for Scenario Tourney-3:

III. C. 4. (optional) Final Fire for Alien Heavy Weapons Units:

a. During the Terran movement phase or extended jump phase, if the Terran player wishes to move into a hex which contains an Alien Heavy Weapons unit, he must stop and announce his intentions before completing his movement for that unit. The Alien player has the option to fire on that unit about to enter its hex.

b. If the Alien unit has fired in the previous turn's Ranged Weapons phase, before it fires, it must roll a single die on the H. W. Final Fire Chart to determine what happens to the Heavy Weapons. If disruption is indicated, the unit is disrupted before it undergoes any type of Terran attack. If undisrupted, it may attack the Terran unit normally. If the unit did not fire in the previous RW phase, it may always fire normally.

c. If the Alien player can fire in the Terran movement phase, he may then attempt to fire again in the next Alien Ranged Weapon phase, with the following addition: The Alien player must subtract one from the die roll for every additional consecutive Terran Movement of Alien Ranged Weapons phase he attempts to fire that unit. Thus, the Alien player may try to fire in succession for as many times as he thinks his luck will hold out. Note, though, that the Alien player may only fire once per phase for any one Heavy Weapons unit."

H. W. Final Fire Chart

Unit Type	Die Roll	Effect
H. W.-Beam	1-2	Disruption
H. W.-Missile	1-3	Disruption
H. W.-Arachnid	1-4	Disruption

Disruption Effects: The Disruption lasts until the end of the next phase that could possibly allow Ranged Weapons fire, i.e. if an Beam fires in its Ranged Weapons phase and also succeeds in firing in the following Terran movement phase, then attempts to fire again in the next RW phase, and rolls a '3', it will be disrupted till the end of the succeeding RW phase.

Scenario Tourney-3:

Harassment of the Skinnies

2157.09.07 (UC): After 'Bughouse', the Terrans decided to mount an offensive against the Humanoids (see Scenario 3: Skinny-5). While the main attack came against the inner home planets, several platoons were detached for raids to tie up communications and possible reinforcements. Terran intelligence discovered that the Skinnies had started a pair of bases in a system which was uncomfortably close to Sanctuary during the Terran hiatus following 'Bughouse.' Since Sanctuary was of such importance and secrecy* the High Command decided that both bases must be destroyed, but with a minimum

of force, for any excessive force might alert the Skinnies that they were close to something very important to the Terrans. It was decided to use the coming offensive as a cover for Operation 'Clean-up'. The plan was not easy, it required that one section of a platoon be soft landed out of sensor range of the first bases planet, with the M.I.'s 'legging' it in to attack at the same time as the other section dropped on the other planetary base. As H-Hour approached, 1st Section, 3rd Platoon, F Company, 3rd Battalion, 3rd Regiment, 2nd M.I. Division (McFarland's Highlanders) prepared for the most strategically important (and secret) "diversionary" action of the First Interstellar War:

AVAILABLE FORCES:

Terran:

2-6-10 3	4-6-6 21	2-3-10 3	12 DAP 4	18 DAR 3

PLUS: HE Launcher x8
NUC Launcher x2

Humanoid:

2-3-2 14	9-8-4 4	12-4-4 4	0-1-2 6

SET UP:

Humanoid: Set up first, within the restrictions of the special rules, move second.

Terran: Set up second, as per Initial Drop Procedures. Move first.

GAME LENGTH: 10 turns.



SPECIAL RULES:

1. The Heavy Weapons Final Fire optional rule is in effect, along with all regular and optional rules which are pertinent.

2. Critical Installations and City/Space Port hexes may be destroyed by firing a NUC launcher into the hex.

3. Only the following hexes are City hexes: II 6-9, JJ 5-9, KK 3-10, LL 2-9, MM 3-5, 8, 9.

4. At least one Power Installation must be placed in Rough terrain with a clear LOS/F to any City hex which must be designated after the Terran player has completed his Drop procedures. (This power station is a geo-thermal unit which is temporarily supplying the power of the small base while a fusion plant is being built. It transmits its power by way of a high power laser which is collected at a special receiving complex in the 'city'.) Within an area of 6 hexes from the receiving hex, the Humanoids may use the power plant as a Heavy Weapons unit, with these characteristics:

- The Range is unlimited.
- The Attack Strength is 20.
- The following die rolls are necessary to destroy the unit:

Attacking Weapon

HE launcher

Die Roll

1

DAP

1-3

DAR

1-4

NUC launcher

Automatic

VICTORY CONDITIONS: The player with more points at the end of 12 turns wins.

Terran: Terran receives points for each of the following:

1 pt. for each city hex destroyed.

2 pts. for each city hex controlled.*

5 pts. for each spaceport hex controlled.

6 pts. for each communications center destroyed.

5 pts. for the nonspecial power station destroyed.

13 points for the special power station destroyed.

4 pts. for each HW-Beam destroyed.

6 pts. for each HW-Missile destroyed.

Humanoid: Humanoid player receives points for the following:

2 pts. for each spaceport hex controlled.

1 pt. for each city hex controlled.

3 pts. if the special power unit is undestroyed.

Unit type

Scout

HEVY/WIA

3 pts.

Marauder

KIA

4 pts.

Command

3 pts.

6 pts.

*NOTE—A controlled hex is one which is occupied or last occupied by a friendly functional unit.

*Heinlein, Robert A., *Starship Troopers*, Berkley Medallion edition, page 123.

Besides immobilizing the Bugs and Skinnies, rough terrain blocks ranged fire. The mountain belt tends to divide any action into two areas, making Terran reinforcement between the map sections difficult. The Bugs don't have this problem, as they can move the whole length of their tunnels each turn regardless of terrain or distance. (It's only above ground that they move torpidly.) The aliens get a minor defensive bonus, presumably because they can stick close to the ground and take advantage of crags and outcropping.

The northeast corner of the map is dominated by the city and spaceport, used only on Skinny planets. (In one scenario, though, Bugs fight on a Skinny planet, so it affects them, also.) The Skinnies can slink through alleys at $\frac{1}{2}$ MP, while the M.I. move at 3 MP per hex; their jump ability is decreased due to the height of the buildings. In city hexes, Skinnies actually *outmaneuver* the M.I.! Ranged fire is allowed only into adjacent hexes, which for once gives the Skinnies a chance to close and use their personal arms, such as they are. Skinnies and Terrans both get a slight defensive advantage, substituting buildings and roofs for crags and outcroppings.

TACTICS & STRATEGY

Strategy depends on the mission, of course. A Terran raid on a Skinny industrial complex should not be conducted in the same way as a seize & hold strike against a Bug complex. This section outlines only basics to keep in mind in different situations.

INITIAL PLANNING AND SET UP

For the Terrans, the first problem concerns handing out the heavy weapons. An M.I. platoon consists of 42 Marauders, 6 Scouts, and 6 Commanders. The number of heavy weapons is doled out by scenario, but a typical figure would be 12 HE Launchers, 6 Nuke Launchers, and 6 each of DAP's, DAR's and HNG's. Normally, HE and Nuke Launchers should be assigned to the Commanders for the reasons given earlier; they're as tough as marauders and 67% faster. The other Launchers are doled out to Marauders. Marauders without Launchers are given DAP, DAR, and HNG charges; one each to minimize losses. It can be argued that giving one Marauder a Launcher and four charges (maximum load) would make him a SuperMarauder, capable of taking on a whole Bug cell alone. But Marauders who fire ranged weapons immediately become priority targets. It is always better to "spread the wealth". Keep the Scouts light in SW&E and use them as sacrifice units. Their weak armor means very high attrition in any case. Listening Devices are assigned to Scouts and Commanders because they have the speed to cut out if they detect more than they bargained for. Once the equipment is distributed up on the *Rog*, the M.I. enter their one-man capsules to be dropped on the planet surface. It is here that drop order is established, *i.e.*, where who is to be with what when they land. Usually (repeat, *usually*, predictability can kill), it is best to position the Marauders in the middle of the nine-man stick, with the Scout and Commander on opposite ends. This places the mobility on the flanks. The Marauder next to the Scout should be armed with a Launcher, putting firepower on both flanks, with the third Launcher being given to the Marauder in the center of the stick. Approximately five hexes should separate each parallel stick; far enough away to avoid overcrowding, close enough to form up quickly. Of course, the scatter process usually ruins these tidy patterns, so plan flexibly. And one more thing; units that scatter off of the map edge are KIA; place units no closer than seven hexes to any board edge.

Skinny set-up is basically the same against Bugs or Terrans. Their poor mobility requires that the Skinnies fight a basically static defense. Heavy weapons and strongpoints should be placed in mutually supportive positions. Position Workers three-high in those strong points containing Heavy Weapons. Form-up Warriors into killer groups of six units in close proximity. Warriors should be positioned within a defensive framework of heavy weapons where they can benefit from supportive fire. Placing personnel in the mountains is a waste of energy. In scenarios where the Skinnies defend installations from Terrans, putting a Warrior near a dummy installation and having him reveal his identity may draw extra attention.

The Bug set-up is a more complicated problem. The sample Bug Complex in the Examples of Play diagram is typical if uninspired. The things to keep in mind are maximum area coverage and concentration. Note how B Cell and C Cell can emerge adjacent; likewise for C Cell and D Cell. The Master Brain's area is covered by an extension tunnel from E Cell. There are a few bugs in this set-up (Cell A is isolated; the demo charges cover a small area in the north and east) but it is a good, flexible plan.

OPENING MOVES

After launching, the Terrans hit the dirt and form up. First priority against Skinnies is to form a skirmish line and advance to isolate and reduce suspected Strongpoints. Against the hidden Bugs, more preparation is required. A defense-in-depth is necessary. Front lines? There are none; the Bugs could be anywhere. Forming a "safe area" (*i.e.*, rear area) is the second priority. Initially, however, the Terran player must be concerned with distributing Launcher-armed men to cover his entire force within a 360° perimeter. An extra-strong contingent should be located in the center of the perimeter (heavily armed Command units can do nicely) where it can reach any area of the perimeter in one turn. After establishing a perimeter, it's time to locate the "safe area". This is the area where the engineers will enter the action via the Retrieval Boat, a Beacon will be dropping for final pick-up, and casualties will be collected; it would be unfortunate to have a swarm of Bugs popping up in the middle of the aid station. To secure the area, have three LD's triangulate to find a tunnelless area near the Beacon's recovery hex and set up shop there. The LD's will probably find tunnels, which will determine the first offensive activities.

While the Terrans are prettying up their formation, the Bugs should be readying a strike. The Bug player has the advantage of a perfect intelligence capability; he always knows the Terrans' location and condition. Even when on the surface, he has Worker units to confuse the enemy. Deciding how and when to strike requires supreme discretion and a deft sense of the unexpected. There are a few things to keep in mind: First, the detonation of demolition charges will cause casualties, instill confusion, and inhibit movement. They should be used lavishly whenever a Terran unit occupies a demo hex. Next and most importantly, the Arachnid player simply does not have the firepower to beat the Terrans on the surface. A Bug Complex has 150 'personal' and 90 'ranged fire' strength points, with 115 defense points, not counting Workers. An M.I. platoon, with the heavy weapons listed earlier, has 192 'personal' and 228 ('ranged fire' strength points, 6 ranged automatic elimination weapons, and 6 same-hex A.E. weapons. Total defense strength is 306. Not all of this could be fired during one turn, but the point is clear. Action on the surface should consist of hit-and-run strikes on small or isolated groups of Terrans. The problem with fighting the Terrans on the surface is that they can jump out of range. Successfully deployed

Arachnid units will breach the surface, come up strong, HIT 'EM!!, and dive back into the tunnels. When the Terrans concentrate in that location for a counterattack, the Arachnid player sends out other units elsewhere. The Arachnid player can attempt to take the Terrans on directly, but only if he had been seriously weakened or the M.I. deployment is faulty.

Against an Arachnid attack, the proper Terran response is to hang back and draw the Bugs away from their breach. It is important to find and destroy the Bug heavy weapons, realizing the M.I. can shoot at it before it shoots at them due to the sequence of play. A Scout or any other M.I. unit can jump into a Bug-occupied hex to ascertain the unit types. Once this is done, Launchers can reduce the heavy weapons and close combat can engage the Warriors. Alternatively, the pop-drop-hop can be used with DAP's.

After defeating the Bugs on the surface, it is sometimes necessary to go into the tunnels to capture Brains or liberate prisoners. This is dangerous and demands careful preparations. First, the surface must be cleared of Bugs. A *banzai*-minded Bug player will make the task easier by wasting his forces in surface attacks. It is important to have a very good idea of the tunnel layout, and locating the Complex is mandatory. If Bugs sally from three or more Cells, it is possible to triangulate and determine the Complex's approximate center of mass. The LD's and Special Talent are the most vital intelligence gathering tools, but almost ANY type of visible Arachnid activity reveals important intelligence information. Every time a breach is made, units exposed, demolition charges detonated, etc., the Arachnid player reveals some aspect of his disposition. Once the tunnel layout is known, an underground assault has some chance of success. Preparatory to descending, combat engineers should attempt to block any side tunnels. A great tactic to seal off a tunnel system is to block the tunnel hex directly adjacent to the Complex, trapping the Bugs. It's also very difficult to pull off. The assault force should consist of six marauders and two Command units. This allows for a favorable rate of attrition against a five-warrior counterattack in the tunnels and gives some "dash" speed from the Command units. A squad-size reserve force should remain near the breach on the surface. Combat in tunnels is bloody, but the Bug cannot reinforce from other Cells and cannot use heavy weapons. Attrition, then, favors the Terran attackers.

The Arachnid player may attempt to "sucker" the M.I. underground before the Terran player is really ready, then pop up from other breaches, hit what force he's left on the surface, and possibly trap his entire underground team. Five Warriors can inflict a lot of damage on a squad underground, if they hit FIRST.

TACTICAL NOTES AND DIRTY TRICKS

TERRAN:

- * Remember the pop-drop-hop-mop. It has a dumb name, but it works. The extended jump phase means the M.I. don't have to stick around to pay for their mistakes. Jump!
- * Avoid stacking at all costs. Retrieve wounded M.I. with care.
- * DAP's are more effective when dropped than when emplaced. The enemy can avoid them otherwise.
- * DAR's are best placed on breaches to discourage Bug movement or make them pay for it.
- * Don't use a Demo charge or a Nuke Launcher where a hand flamer can work.
- * Don't be afraid to attack Workers. Better safe than sorry.

- * Sacrifice Scouts. That's what they're there for.
- * Remain two hexes away from Bug Warriors, three hexes from Skinnies. Never knowingly enter a hex adjacent to a breach hex, unless absolutely necessary.
- * Two Marauders using personal flamers attack a Bug Warrior at 2-1. Three attack at 4-1.
- * A Nuke shot into a breach hex creates a RAD area and prevents friendly use of the breach.
- * Because there are no zones of control, it is difficult to block enemy movement. Don't think in terms of 'fronts', 'flanks', or 'rear areas'. Think three-dimensionally, not linearly.

HUMANOID:

- * Revolve defenses around Strongpoints. Warriors in the open are unnecessarily exposed.
- * Take advantage of road movement by placing Strongpoints in road hexes.
- * Maintain wide fields of fire for heavy weapons.
- * Maintain inter-locking fields of fire between Strongpoints.
- * Attempt to draw the enemy into the city where ranged weapons are ineffective. The city is the Skinnies' best combat environment.
- * Use Workers as Decoys. After they're revealed, stack them with Warriors.

ARACHNID:

- * Use Workers as 'mine detectors' for DAP's and DAR's.
- * Refrain from using heavy weapons for initial raids. Use them only after the Terrans have been diverted.
- * Use masses of Workers as diversions. When the Terrans move to it, hit somewhere else with Warriors.
- * When attacking, hit from as many widely scattered breaches as possible. STRETCH the enemy to create thin spots in his defense, then attack the thin spots.
- * Attempt "sniping" raids from breach hexes, only. Surface movement accelerates destruction.
- * A breach, once created, requires watching even if it is never used. If enough breaches are created, the Terran player will not know where to expect a counterattack.
- * If the Terrans capture a Brain, kill it even if it means the loss of units.
- * Place demos in "clumps" so that they don't outline the tunnel system.
- * In tunnel combat, a single Warrior can delay Terran movement for a turn.
- * Be patient.

IN GENERAL:

- * Read the novel.
- * Read up on the Pacific Island War in WW II. The "Corkscrew and Blowtorch" tactics are applicable to the situation here.
- * Plan ahead.

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SAGA OF THE BUG WAR

By Richard Hamblen

The story of the First Interstellar War, 2156-2161 A.D. (also known as the "Bug War"), is actually many stories, not all of them covered in the book and or game *STARSHIP TROOPERS*. It is the story of Grand Strategy, of great troop movements and competing societies, and it is the story of individual mobile infantry troopers such as Juan Rico, all within the context of a clash of alien races.

One of these stories is the story of the Mobile Infantry platoons, the story of the teams of troopers that had to win the war in thousands of small actions—victories and defeats. This story is one of the major themes of the book *STARSHIP TROOPERS*, and is the basis for the same game. In the book, however, the story is told as the platoon evolves during the course of the Bug War, losing troopers in combat, developing new leaders and officers, and adding recruits to make up their losses. The Mobile Infantry platoon is a living entity that loses efficiency with its casualties but gains it back with experience, new leaders and transfers.

This variant is designed to simulate these fluctuations and follow a platoon—the "Roughnecks"—through the course of the Bug War, by stringing the scenarios in *STARSHIP TROOPERS* together into a campaign game, with the "Roughnecks" progressing from scenario to scenario, and with new rules that cover the problems of losing leaders and troopers and having to replace them with new leaders and untried recruits.

VARIANT RULES**I. THE CAMPAIGN GAME**

The players play Scenarios 1, 2, 3, 4, 5A, 6 and 7, in that order, with the same player playing the Terrans for all seven scenarios. Scenario 5B is skipped. (I know, I know, the "Roughnecks" were not at Sheol nor Skinny-5, but these battles represent the battles the "Roughnecks" did take part in but which are not described in the book.)

A. The Victory Conditions of each Scenario are used to determine the winner of that Scenario, as usual. The player who wins a majority of the Scenarios wins the Campaign Game.

B. Between Scenarios, the Terran player must replace all his KIA and WIA losses with *recruits*, as explained below.

C. All rules and Scenario Addenda are in effect and, in addition, Special Variant rules have been included, as explained below.

**II. CASUALTIES AND RECRUITS**

At the end of each Scenario, the Terran Player must replace all of his WIA and KIA casualties with "recruits," representing the addition of untried Starship Troopers fresh from training camp.

A. When making out a new Terran Control Sheet for the next Scenario, indicate with an "R" each unit that was KIA, WIA, or non-retrieved during the last Scenario. Thus, if Marauder F7 was WIA, an "R" would be written in the "F 7" location on the Terran Control Pad for the next Scenario.

1. If a SCOUT is KIA or WIA, place an "R" in the box of any other non-recruit Marauder in the Scout's squad, instead; never place an "R" in a Scout's box (it is assumed that Scouts are elite troops, and that losses among Scouts will be made up by shifting a Marauder into the Scout slot—but then a recruit must replace the transferred Marauder). If there are no non-recruit Marauders in that squad, then use any non-recruit Marauder in that

Section; if there are none in the Section (boy, are you in trouble!), any non-recruit Marauder in the platoon.

2. Similarly, if a Command unit has been KIA or WIA, place the "R" in a Marauder's box in the appropriate unit: within the Section for a Section Commander (if possible), or any Marauder in the Platoon if a Platoon Leader is lost. It is assumed that the new Commander has been made available either by promotion within the ranks, or through transfer, but at the expense of a Marauder who must be replaced. (However, changing Commanders has an important effect in other ways—see the next section of the rules.)

B. When a "recruit" first attacks or is attacked in any way, the Terran Player must roll a die and consult the table below:

ROLL	COMBAT VALUE
1-3	4-6-6 (full value—use no recruit counter)
4	3-6-5
5	4-6-6 (full value—use no recruit counter)
6-7	3-6-5
8	3-5-4
9-10	2-5-3

1. It is assumed that he attacks or is attacked, the unpredictable quantity that is the recruit will have a "moment of crisis" that will determine how well he will fight for the rest of the Scenario. For the rest of the Scenario, that recruit will have the attack, defense and movement allowances indicated above under "COMBAT VALUES"—these values are also used in the attack which triggers the "moment of crisis."

2. When a recruit undergoes his "moment of crisis," place a "RECRUIT" counter with the combat values indicated by the die roll on top of the recruit Marauder's counter. The factors on the recruit counter are the factors that Marauder has for the remainder of the Scenario. At the same time, circle the "R" in that Marauder's box, to indicate that the recruit has already undergone his "moment of crisis" and does not have to roll again, ever.

3. When rolling the die, add 1 to the die roll for each Platoon Leader, Assistant Platoon Leader, Section Leader (in the Recruit's section) or Assistant Section Leader (in the recruit's section) who is either KIA, WIA or "incompetent" (see below) at that moment.

B. At the end of the Scenario, roll for each of the recruits who have not yet had a "moment of crisis," place the appropriate RECRUIT counters and circle their "R's" DO THIS FOR ALL RECRUTS WITH THE PLATOON AT THE END OF THE SCENARIO, WHETHER THEY TOOK PART IN THE SCENARIO OR NOT.

C. After all recruits already with the platoon have had their "moment of crisis," and before the next Scenario's recruits are added, replace each RECRUIT counter with the next highest RECRUIT counter (to indicate the seasoning the new Marauder has gained by experience). Recruits that survive will thus gain one level each Scenario until they are full-strength Mobile Infantrymen.

1. When making out the control sheet for the next scenario, indicate the surviving recruits by a circled "R" and write down their combat values for that scenario. As tested recruits, they will not have to roll for a "moment of crisis" in the new Scenario.

2. When a recruit becomes full strength, whether by gaining levels between Scenarios or because he rolled well at his "moment of crisis," the

RECRUIT counter is removed and he is a full-strength Marauder again; no "R" is placed in his box subsequently (unless he is lost again).

3. Marauders remain "recruits" until they reach full strength; an "R" cannot be placed in a box if there is already a circled "R" in that box.

D. Each Marauder is at full strength the first time it is used in the Campaign Game.

E. Recruits cannot be transferred between Squads and Sections except as required to replace Scouts and Commanders.

F. In Scenario 4, the Terran player may choose either of his sections as his strike force; similarly, the Terran may select any of his Squads to be "Force B" in Scenario 5A.

G. In addition, the Terran player should keep track of all the WIA he manages to recover (retrieve) during each Scenario. For every WIA he retrieves, he gets one full-strength Marauder, instead of a recruit, to replace a vacancy between Scenarios.

III. COMMANDERS

A. The Terran player must roll one die every time a Leader or Assistant Leader must be replaced. If a "6" is rolled, the leader is "incompetent," and this is noted on that Commander's box on the control sheet for the next Scenario. This is done at the same time that new recruits are being brought into the Platoon.

1. At the end of each Scenario, the Terran player may turn one of his "incompetent" Leaders into a normal, competent Leader; the Terran player may choose which, if he has a choice.

B. EFFECT OF LEADERS:

1. As explained for recruits, above, a recruit must add one to the die roll for each incompetent (or KIA or WIA) Section Commander in his Section and 1 for each incompetent (or KIA or WIA) Platoon Commander in his Platoon at that recruit's "moment of crisis."

2. In addition, each turn that ALL of the Command units in a Platoon are KIA, WIA, "incompetent," or captured, the Terran player must roll a die for that Platoon. The number that he rolls identifies the Marauders in that Platoon that CANNOT MOVE THAT TURN! For example, if he rolls a "6," counters A6, B6, C6, D6, etc. in that Platoon cannot move in that turn. These counters may still attack normally. (If they couldn't move anyway, then there is no penalty; he does not have to roll again.)

IV. SPECIAL RULES

The above rules will affect play balance drastically, so the following rules have been added to aid the Terran player—and, incidentally, to introduce a little more of the Terran Weaponry mentioned in the book.



A. NEODOGS

Add the "NEODOG" counters to the Terran forces in Scenarios 3, 4, 5A, 6 and 7.

1. NEODOGS move through terrain paying the HUMANOID terrain penalties; however, NEODOGS may travel on AIRCARS at no cost, in addition to normal AIRCAR capacities.

2. NEODOGS land using the INITIAL DROP procedure; each NEODOG must land with a M.I. unit specified before the start of the Scenario (example: the Terran player indicates that one of the NEODOGS will land with Marauder F3; during the drop, the NEODOG lands in the same hex as Marauder F3).

3. NEODOGS cannot destroy Critical Installations, but they do cause enemy units in the same hex to be turned face up at the end of the Terran turn.

B. THE HEAVY WEAPONS BRIGADE

Lacking any firm descriptions in *STARSHIP TROOPERS* about the "Heavy Weapons Brigade," we can only guesstimate:



1. **HEAVY TANK.** Treats terrain like Humanoid infantry. May not enter tunnels.



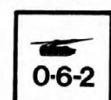
2. **ARTILLERY.** Ranged weapon; moves through terrain like Humanoid units. May not enter tunnels.



3. **BORER.** This unit may move on the surface or through tunnels. On the surface, it pays terrain movement costs like Humanoid infantry. The BORER enters and moves through tunnels like Mobile Infantry *except*:

a. A BORER may move through enemy-occupied tunnels at the normal rate—it does not have to stop; and

b. A BORER can move through and *re-open* collapsed tunnels at its normal movement rate. When a BORER enters a new tunnel hex, the Arachnid player must announce the orientation of all open and *collapsed* tunnels entering that hex; the BORER can move through either open or collapsed tunnels, and as soon as the BORER has passed through a collapsed tunnel, that tunnel is open for all subsequent Terran and Arachnid movement.



4. **BREACHER.** This unit pays terrain costs like Humanoid units while moving. It cannot enter tunnels, but it can make breaches exactly like Combat Engineers: in effect, it is a heavily armored Combat Engineer unit.

5. Each Heavy Weapons Brigade comes equipped with two retrieval boats. (Use blank counters for these, if required.) Heavy Weapons units must land via the "soft landing" technique, no more than four units per retrieval boat; the retrieval boats need not land in the same hex nor at the same time.

6. The Heavy Weapons Brigade is available for Scenarios 5A, 6, and 7 only.



C. SPACESHIPS

1. This rule re-creates the effect of spaceships in orbit passing over the battlefield during the battle.

2. Before the start of the Scenario, the Terran player must write down the path and turn number that the spaceship will use when passing overhead.

a. The path must be a straight line directly along the grain of hexes, crossing each hex side at a 90 degree angle like tunnel segments. The route must be a straight line extending from one edge of the board to another edge; the route may be in any of the six directions that follow the grain of the hexes. The player should draw this route on his control pad map.

b. The Terran player must also indicate the turn the spaceship will pass overhead, and which end of its route it will enter the board.

c. The spaceship may enter the board one turn, stop along its route, and then finish its pass the next turn. (This indicates that the turn ended before the spaceship actually completed its path; the spaceship does not actually stop in orbit.) If the Terran player wishes for this to happen, he must indicate the hex the spaceship will stop in on his control sheet before the start of the Scenario.

3. Effects of spaceships:

a. Each enemy unit in a hex the spaceship *passes through* or passes adjacent to is turned over at the end of the Terran turn (orbital reconnaissance).

b. Each spaceship may fire nuclear rockets that attack like Arachnid demos into any hex along their path or into any hex adjacent to their path, as they pass overhead. Each spaceship has a total of 3 Scale-3 nuclear demos and 3 Scale-6 nuclear demos: they must be fired while the moving spaceship is in or adjacent to the hex to be attacked. These demos may be used regardless of the presence of Terran units in the hexes affected.

4. The spaceship enters the board and moves and attacks at the end of Terran movement that turn, but before combat or extended jumps.

5. The Terran player gets one spaceship pass in each of the following Scenarios: 1 (no nuclear attacks from space allowed), 4, 5A, 6, 7.



D. BUG SPACESHIPS

1. Bug spaceships must be pre-recorded like Terran spaceships. They enter the board, move and fight at the end of all other Arachnid movement, before Close Combat.

2. Arachnid spaceships reconnoitre from orbit like Terran spaceships, only on the Arachnid turn.

3. Arachnid spaceships may NOT fire nuclear demos; they execute their attacks in a different fashion.



a. Each Bug spaceship carries 6 "scrambler" missiles, which it may launch in any hex it moves through, one or more per hex.

b. The "scrambler" missiles do not move nor attack on the turn they are launched.

c. On every turn after they are launched, each "scrambler" missile moves during Arachnid movement. It must always move towards the closest Mobile Infantry counter on the board, (with the Arachnid player choosing directions in case of ties), and as soon as it enters a hex with a non-KIA Mobile Infantry unit (Marauder, Scout, Leader, or Assistant) it must stop.

d. During the Arachnid Close Combat phase the "scrambler" missile must execute an attack against the top Mobile Infantry unit in its hex (if any).

e. A "scrambler" missile may be attacked normally by Ranged Combat or Close Combat. Ignore "DISRUPT" results—they have no effect.

f. Each scrambler unit is removed from the board when it attacks or is eliminated by enemy attack. Otherwise, it remains on the board.

4. The Arachnid player gets one spaceship pass in each of the following Scenarios: 2, 4, 5A.



THE VIIPURI DEFENSE

By J. Richard Jarvinen

The article below is just the first of what we expect will be a multitude of strategy articles pertaining to THE RUSSIAN CAMPAIGN. Following the rich tradition of STALINGRAD enthusiasts it is likely that analysis of TRC will be with us for many years to come. We've already heard the first groans of protest over many of the points addressed by Mr. Jarvinen's article from our own resident TRC expert, Richard Hamblen.

We should point out that the ability to attack Minsk and/or Odessa on the first impulse of the game referred to below was quite illegal in our first edition as units may attack only units stationed in the particular Military District they are allowed to strike on the first impulse. However, this restriction has been rescinded in the Optional rules of the 2nd edition making the commentary quite timely and appropriate.

Perhaps the greatest obstacle for the Soviet player to overcome when defending in the RUSSIAN CAMPAIGN is the morale problem created by the loss of more than fifty per cent of his forces in the first two turns. The sinking sensation that occurs deep within a player's bowels as he helplessly watches his pitifully small army overrun and flanked and pursued across the vast Russian steppes by the seemingly invincible Germans is enough to discourage even the most hardened veteran. Initially outnumbered 203 combat factors to 142, the Russian soon finds himself outnumbered 203 factors to only 70 or 80, with the enemy literally at the gates of Leningrad and Stalingrad. At this point it is no wonder that many Russian players throw up their hands in despair and suggest a game of FOOTBALL STRATEGY. If, however, the Russian can accept at the beginning of the game that he will lose most of his army and that there is no way to stop the initial German advance, he will have solved his morale problem before it even has a chance to germinate. And once this worry is over, he can concentrate on more important considerations, such as how to keep enough of his forces alive to protect Leningrad, Moscow and the valuable southern production centers until fresh troops, new T-34s and winter bring welcome relief.

This article will discuss the niceties of the original Russian setup, concentrating on tactical rather than strategic aspects of defense. Each of the four Russian military districts and the Finnish border will be presented separately. Also the Russian first turn will be considered, as the initial disposition of his forces has a direct bearing on what options are available after the German onslaught.

If for no other reason than to identify this particular defense from the many others that are sure to sweep the RUSSIAN CAMPAIGN cult, I propose to name the suggested Russian setup the *Viipuri Defense*. The name *Viipuri* comes from a town in what used to be Finland, but due to the misfortunes of war now sadly belongs to Russia and is currently called Vyborg. While *Viipuri* only applies to a very localized area (hex C-10), I will apply the name to the entire defense as presented in this article. Hopefully some form of standardization will appear by which gamers will be able to quickly identify the various defenses by name rather than the more cumbersome method of hex numbers.

Before any detailed analysis can be started on the opening defense, the basic objectives of the Russian player must be defined. The two primary concerns are: 1) the prevention of a massive German breakthrough, and 2) the preservation of the front line units. Unfortunately these two concepts are almost diametrically opposed. To prevent a break-

through the Russian must necessarily place larger, as well as a greater number, units on the front line to face the brunt of the German assault. And if the Russian attempts to concentrate his forces in one area in order to form a strong defensive position, a weaker area may be overrun so that the German may flank or surround the stronger group. Thus a delicate balance is necessary to keep the Germans at bay and at the same time maintain some reserves for the coming months.

Specifically, the German must be prevented from breaching the Dvina and the Bug river lines on his first turn, as these two rivers will form the main line of defense in July and August. Loss of either of these river lines can have serious consequences for the Russian. Also care must be taken that escape routes exist for the various units. Rail lines and terrain must be used to best advantage if units are to be saved.

Unfortunately for the Russians, the Germans can concentrate enough strength and Stukas in almost any area to force a breakthrough. The solution, then, is to make such a breakthrough so costly that the German will not attempt it. For example, using the Viipuri Defense, Minsk can be taken in the first impulse, but only at a minimum cost of using all three Stukas and 49 factors just for the overruns! It's doubtful whether any German commander would think that Minsk is worth such an effort.

But enough of introduction and background. Onward to the heart of the matter, i.e., how do we stop the Germans? (Note that the Viipuri Defense is comprised of the Russian positions shown in Diagrams 2, 3 and 4.)

The Viipuri Trap

At first glance there seems to be few options available to the two Russian units assigned to the Finnish border. There are only five border hexes from which to choose, and the Finnish army poses no great threat. However a careless Russian may find himself in trouble from turn one due to a flawed setup. In this erroneous defense, which I have termed the *Viipuri Trap*, both Russian units are placed on C-10. The rationale for this position generally runs along the following lines: One may as well concentrate his forces on C-10 as there is really no need to close the northern corridor. The Finns can advance only eight hexes before they outrun their supply line, and thus make no threat on Archangel or the key rail lines running into Leningrad. Furthermore, when winter rolls around, they will have to beat a hasty four hex retreat. If instead the Finns try an attack against the Russian units, they risk losing most of their army (the infamous Contact at 1-1, reduced in the second impulse to a 1-2, where the German player promptly

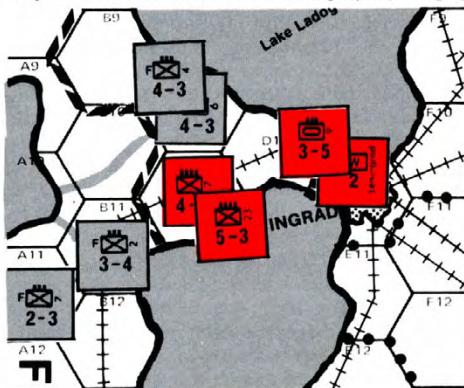


DIAGRAM 1 The Viipuri Trap

rolls a one, resulting in AE!). With this result, the Finns are lost, along with Finland, pressure from the North and an early chance to take Leningrad. A cautious German commander, cognizant of these implications, will be content to hold the river line until the German advance can assist the Finns in the assault against Leningrad. The Russians, lacking units, cannot afford to attack the Finns when defending behind the river. The result is a rather passive and inactive front for several months.

However, careful analysis reveals that this particular defense can have disastrous results. If the German is willing to take the 2.8% risk of losing eleven factors of Finns, he has a good chance of eliminating or isolating both Russian units (see Diagram 1). The various possibilities for this attack are:

Finns lose all eleven factors (AE)	2.8%
Finns retreat (AR or A1)	58.3%
Double Contact (C followed by C)	2.8%
Russians lose (EX or DR)	36.1%
Expected Finnish Loss	1.86 factors
Expected Russian Loss	3.25 factors

The Expected Russian Loss is computed ignoring a Double Contact. However, a Double Contact is really a plus result for the Finns as the Russians will now be hard pressed to extricate their surrounded units. The best odds he can achieve on the first impulse, assuming a replacement unit from Leningrad, is a 1-1 on both of the Finnish forces. As only a successful attack against the Finn 4th and 6th can save the Russians, they have only a one-third chance of survival. It would be a mistake for the German to include the Finnish 7th Infantry in the attack as this would give the Russians a second chance to save their units. A successful attack against the units on B-11 opens up a supply line through the A-row. Substituting the Finn 7th for either the 4th or 6th is also a mistake as this would allow a 2-1 counterattack on one of the Finnish forces, increasing considerably the Russian chance of survival. Also the Finnish 7th helps protect Finland should the German be unlucky enough to lose all eleven factors of Finns in his initial attack.

Having established (I hope) the futility of placing both Russian defenders in C-10, the question now becomes: Where does one place the Russian units? Obviously, one unit would still be placed on C-10. The other would then go on B-9 or C-9, preventing the *Viipuri Trap*. C-9 has the advantage of being slightly closer to Leningrad, while B-9 denies the northern route to the Finns. Personally I prefer the 23rd Infantry on B-9 and the 7th Infantry on C-10. This sets up a nice little counter-trap against a careless German. The standard German move would be to take a 2-1 shot at the 7th Infantry. At most this can risk only one Finnish unit, and at best can cost the Russian one unit as well as breach the river line. However, a greedy German may decide to take a chance against the 23rd Infantry. This unit can also be attacked at 2-1 and has two added advantages: 1) it can be attacked from A9, thus preventing its doubling in case of a Contact result in the first impulse, and 2) it's a larger unit for the same "price". However, depending upon the results of this 2-1 attack, the Russian may have some daring counterattacks available. In fact, I prefer the German to win his attack, as an AR result just shoves the Finns back into an impregnable position in Finland. If the German receives an EX or D1 result, the Russian can attack the Finnish 2nd at 1-1 odds (see Diagram 2). A Russian replacement (two, if available) should be brought to C-10. At least one of these replace-

THE GENERAL

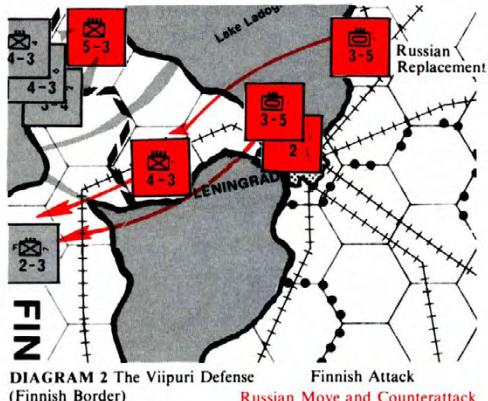


DIAGRAM 2 The Viipuri Defense (Finnish Border) Russian Move and Counterattack

ments should be a 3-5 armored unit. Thus, should the Russian receive an A1 result, he can eliminate the 7th Infantry and use both armored units to attempt another attack on the Finnish 2nd during the second impulse. This tactic gives the Russian a 66.7% chance of isolating the Finns on A-9.

If the result of the original German attack against the Russian 23rd was a Contact or DR, a 1-1 attack can be made against the Finns on A-9 directly, giving a 38.9% chance of eliminating them and a 2.8% chance of isolating them. Granted, all these counterattacks use units that are needed elsewhere, but if they are available, the benefits of such attacks far outweigh the risks involved.

And you thought the Finnish front was dull!

The Baltic Dilemma

The immediate objective in the Baltic Military District is to prevent the Germans from opening a gap in the Russian line in the first turn and pouring in behind the Russian defenders in the Western Military District or reaching the Dvina River. A secondary objective is to keep Russian losses to a minimum as well as preventing their being surrounded.

For his opening setup, the Russian player has four units available to cover a three hex front (see Diagram 3). In one extreme case, the 1st Armored (the weakest unit) can close the entire front line, but in appearance only. Easily overrun in the first impulse, the German can attack the second line which can be exploited during the second impulse. The other extreme case would be to place all four units on the front line (the 11th Infantry and 1st Armored on I-19 and the 8th Infantry and 3rd Armored on H-20 or I-20). This presents the most formidable front line, but can be pushed back easily with the aid of Stukas, again allowing exploitation during the second impulse. The answer to this dilemma must lie somewhere between these two extremes.

As the German has only 35 factors available in the first impulse for Army Group North, I prefer to put units totaling only 5 factors in the front line. These 5 factors can be overrun, but only at the expense of all 35 German factors and a Stuka, a tactic that few German commanders are willing to

execute, given the restrictions on the overrunning units. Using five factors on the front line, there are three possibilities for initial deployment: 1) 8th Infantry on H-20; 2) 1st Armored on G-19 and 7th Armored on H-19; 3) 1st Armored and 7th Armored on H-20. Some minor variations are possible, but these three cases represent the basic defenses available. The following calculations were made based on these premises: The Germans use all 35 factors for his attack, no Stuka is used, and the 35 factors can be allocated against the split defense (number 2) in a manner most favorable to the German player.

Defense #1 8th Inf. on H-20

Killed	83.3%
Retreat	17.7%

Expected Loss = 4.17
Expected DS = 1.67

Defense #2 1st/7th Split (G-19/H-19)

Both Killed	69.4%
One Killed	27.8%
Both Live	2.8%

Expected Loss = 4.17
Expected DS = 1.67

Defense #3 1st/7th Stacked on H-20

Both Killed	66.7%
One Killed	16.7%
Both Live	16.7%

Expected Loss = 3.67
Expected DS = 1.67

What is somewhat surprising (at least to me) is that the 1st/7th Split yields the same results as the 8th Infantry by itself, whereas the 1st/7th Stacked yields a result of a half point less (note that the DS loss Expectancy is the same for all three attacks). The answer to his anomaly becomes apparent, however, if one examines the CRT. The result of D1, not found on standard CRTs, is of no help to a defender when only one unit is in a hex, but is a lifesaver if two or more units are stacked together. Thus the third strategy indicated is the optimum one to use.

There are some disadvantages to using this particular deployment. One is that it creates more pressure for the units defending in the Western Military District, as they become responsible for control of the J-row. Another disadvantage is that you are placing your armored factors in the front line and thus are more likely to lose these mobile and hard to replace units. The third disadvantage, and possibly the most significant, is that it virtually insures that the Stuka unit assigned to Army Group North will be used elsewhere.

The remaining infantry units form the second line of defense (see Diagram 3). I suggest placing the 11th Infantry on G-18, as it gives this larger unit a

better chance to reach either Riga or the Dvina River line on the first turn. The 8th Infantry is placed on I-19, sealing the gap. Since no Stukas are available in the second impulse, this line is virtually impossible to overrun. Thus both of the objectives stated for the Baltic Military District are fulfilled by this defense.

As an exercise, the reader should take one of the armored units on H-20 (it doesn't matter which one) and place it on one of the rear hexes (G-18, H-19, or I-19). Then as the German player, try to force a German armored unit to the Dvina River on the first turn. With proper technique it can be done in every case. The lesson is very instructive, particularly if you like to play the Russians.

The Unquiet Western Front

The Western Military District is undoubtedly the most difficult area on the board to defend. Only seven units totalling 23 combat factors are available for a front eight hexes wide against a German force of 35 armored factors, 46 infantry factors, and Lord knows how many Stukas. The one Russian plus for this region is the terrain. The swamps and forests in the south can severely restrict the panzer advances, and must be used to advantage if the Russian is to hold at all. The recommended defense is shown in Diagram 3.

Note that unless the German overruns the 3rd Cavalry, the 5th Armored, and the 8th Armored, they cannot attack Minsk on the first impulse. The infantry cannot start close enough to the border, and the presence of the 8th Armored denies the hexes N-20 and O-20 to the German armored. Thus these three relatively weak units are able to contain the Germans in the southern sector quite effectively, allowing the stronger units to be used in the north, where the terrain is more open. The 4th and the 10th Infantry are placed on J-22 and J-21 respectively, in order to protect the Baltic flank. Allowing the German to reach I-20 in the first impulse would cause a quick collapse in that area. However, with the given placement, the German would be forced to waste 56 factors in overruns to reach this critical hex. Few commanders are willing to give up this much punch in the second impulse for the sake of a particular objective.

The 3rd Infantry is securely placed on L-23. Even if overrun, the panzers are denied any penetration because of the forest. It's also unlikely that a German commander would risk less than a 5-1 attack against this unit, as a Contact result would tie up the attacking factors in the second impulse that could be used elsewhere. Generally this unit will not be attacked but instead finds itself surrounded and forced to fight its way out of isolation.

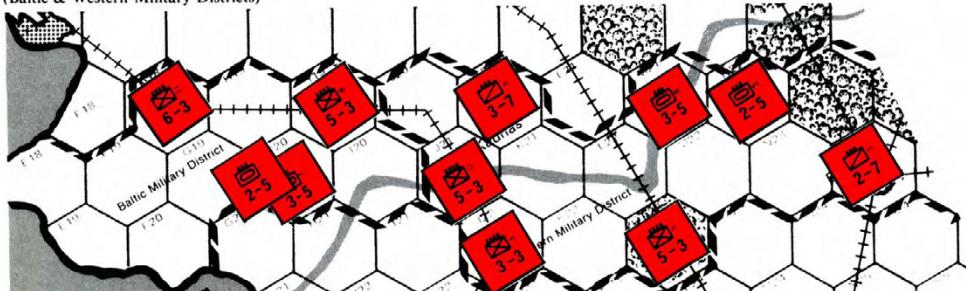
The two armored, rather than the cavalry units, are placed on M-21 and N-22. If by some chance these units are not attacked, they can easily reach Minsk, whereas the cavalry units would find themselves lost in the forests just outside of Minsk.

Because the Western Military District has such a large front to defend with so few units, as well as face the largest German Army Group, the Russian commander should consider any units that survive the first turn in this area as bonus factors. So don't be discouraged if the Kiev army simply disappears. Just hope they have done their job, which was to prevent a significant German breakthrough.

Chicken Kiev

After the painstaking analysis of the Finnish border and the Baltic front, and the scrapping for units in the Western district, the Kiev Military District appears almost trivial to defend. With mountains, swamps, and a plethora of units, one can almost throw down the units randomly and still the German would have difficulty securing the pass

DIAGRAM 3 The Viipuri Defense (Baltic & Western Military Districts)



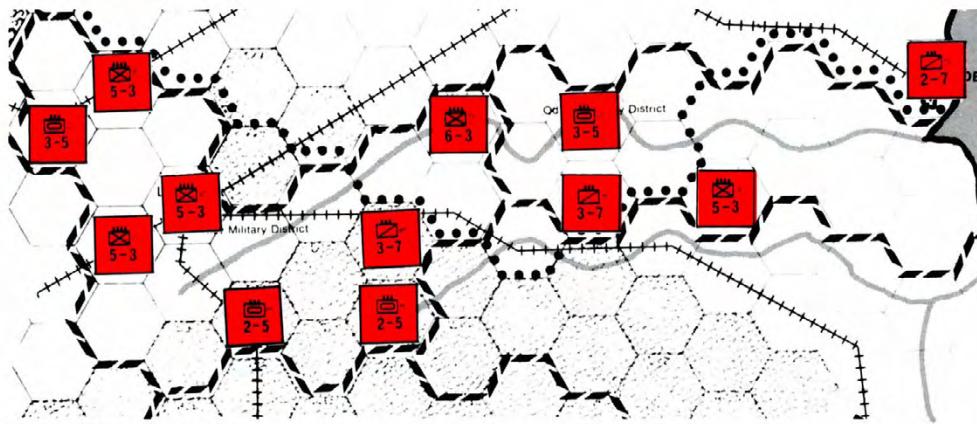


DIAGRAM 4 The Viipuri Defense (Kiev & Odessa Military Districts)

along the Dnestr River. The problem is not how to stop the Germans but how to get the Russians out through the same terrain that is so frustrating to the German. Because it is difficult to penetrate this area, many German commanders will allocate the bulk of Army Group South to the Rumanian sector and attempt to trap the Kiev group with a giant pincers movement.

With the above thoughts in mind, I have devised the defense as pictured in Diagram 4. The small armored units are placed in the mountains, making them costly to overrun, but still able to withdraw in good order due to their ability to move in the second impulse. The major part of the infantry force lies on the two major rail lines in the north, allowing them virtually unlimited movement, assuming the German fails to cut the rail lines. The 5th Cavalry secures the southern flank, and should have good access to either Kiev or the Bug River on the first turn. The 12th Infantry is positioned so as to reach X-22, assuming the German is unable or unwilling to push to X-24 or X-25 through the Rumanian sector.

While placement of a unit on W-25 seems to strengthen the Kiev southern flank considerably, in reality it does nothing more than weaken it. Assuming a unit from the Odessa front is on Y-25, the German is severely restricted as to where he can place units in Rumania if he wants to make a flanking movement with Army Group South. The hexes X-27, Z-27 and CC-25 seem the most likely choices, but with no overruns, units from Army Group South can advance no further in the first impulse. However, if the Russian places a unit on W-25, the German is allowed to advance his units to X-26 and attack the "K" unit on W-25 in the seam, allowing more "S" German units to advance to X-27 (see Diagram 5). The German attack shown is not necessarily the most optimum attack available, but is shown solely to demonstrate the weakness of such a placement. With the recommended defense, only three units are able to advance effectively, and then not until the second impulse (unless he is willing to overrun the unit on Y-25).

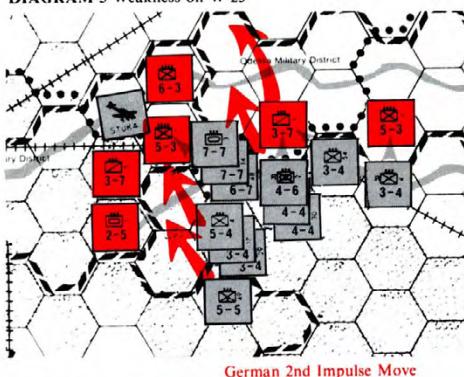
The Odessa File

The Odessa Military District is another area where a lot of interesting things can happen. Although there are only three units totalling eleven factors in this area, they face a rather small, and primarily infantry, force of twenty-three factors. However, if the German concentrates some of his armored strength from Army Group South in this sector, he may produce some spectacular results.

The standard defense is shown in Diagram 4. While this defense leaves Odessa vulnerable, it secures quite effectively the southern flank of the Kiev district, which is important for the escape routes of the units on the rail lines and in the

mountains. Preservation of the Kiev army group is more important than one tired little seaport. Note that even if the 4th Cavalry is overrun, the Odessa line is still secure. There does exist an alternate defense which can be used when facing a cautious or inexperienced German commander. This defense (shown in Diagram 6), however, has one serious flaw. While it does give considerable protection to Odessa, an aggressive German can make you wish you never heard of overruns. The majority of the Rumanian army overruns the 4th Cavalry on AA-25, allowing the Rumanian Cavalry to reach W-22, completely closing both railways into the Kiev district. By placing most of Army Group South on the hexes indicated by an "X", the German player can run wild. The 52nd Panzergrenadier can walk unopposed into Dnepropetrovsk, while the German infantry can reach any of the shaded hexes. The German armored now has several options, all good. First, he can advance to the Dnepr River, threatening all three southern production centers. Second, with some help from Army Group Center, he can attempt to trap the entire Kiev army in an elaborate pincers movement. Using the second strategy, some units from Army Group Center should advance into the swamp hexes R-22 or S-22, closing the jaws. However, this plan is not without its dangers. The German supply line must be closely watched, as this rapid advance can easily outrun the eight hex limit. Also the Russian player, desperate to save his Kiev units, will indulge in many 1-1 and 1-2 attacks, particularly against the German armored units. The fireworks involved are truly something to watch. However I will leave a precise analysis of this plan to some other masochist. All I know is that I don't like the Russian position when faced with these German threats.

DIAGRAM 5 Weakness on W-25



And yet a third defensive possibility for the Odessa District is shown in Diagram 7. This defense prevents the "Rumanian Romp," as described above, as well as provide some flank protection for Odessa. (Note that Odessa may not be attacked on

the first impulse). However, the 9th Infantry can be rather easily dislodged, opening a route to that critical hex X-24. Or alternatively, the German player can launch an offensive against Odessa (see Diagram 7) with only minimal support from Army Group South. Using a Stuka, the German can achieve a combined attack against the 12th Armored and 4th Cavalry at 5-1 odds, which will assure him of dislodging those two units. In the second impulse, the attacking units advance to CC-24 and the 48th Armored from Army Group South moves to CC-23, surrounding the Odessa garrison. At worst (an EX was the result of the first attack) the German has a 3-1 on Odessa. At best he will have a 4-1 attack, which virtually assures the fall of Odessa.

Thus it can be seen that Odessa will usually fall during the first turn regardless of the Russian defense. Therefore the defense given in Diagram 4 is preferred, abandoning Odessa, but making X-24 difficult to obtain, thus protecting the northern Bug, which is indispensable for the protection of Kiev.

The Russian First Turn

Having concluded the analysis of the entire Russian setup, a discussion of the Russian first move is appropriate (reaping the rewards, so to speak, of a successful defense).

Assuming no counterattacks present themselves along the Finnish border, the Russian should hold the river line by placing units on B-10 and C-10, if possible. If the Finns won his 2-1 attack against the 7th Infantry, the Russian should fall back to D-10 and not into Leningrad. If the German commander has been enterprising enough to place a Headquarters unit in E-18, the Finns, with the aid of a Stuka, can attack Leningrad at 4-1!. It would be embarrassing, to say the least, to lose Leningrad and its valuable production center in July. Furthermore, the force on D-10 should be just strong enough to prevent the Finns from attacking at 2-1. If available, a cavalry unit on C-6 can be an effective deterrent against the Finns.

Be stingy with your rail movement allocation. Don't use them for units that can reach defensible position without it. For example, the 9th Armored in Leningrad, if available, can reach H-16 or J-15 without rail movement, aiding in the defense of the Dvina. The 2nd Armored in Moscow can reach P-15, a particularly good defensive hex, as the German infantry can seldom reach it by July or August and few Germans would want to risk an exchange against it if attacking only with armored units.

Hopefully the 11th Infantry in the Baltic Military District has survived the first turn and can garrison Riga. The two Riga units would then be released for duty along the Dvina River. A successful (meaning non-overrunnable) defense of the Dvina can consist of putting units no smaller than three combat factors in only the hexes of Riga, H-16, J-15 and L-14. It is seldom necessary to have a unit on L-13 for the first turn. A common mistake along the Dvina River line is to garrison it too heavily. With two Stukas lurking nearby, the German can usually break through and surround the stronger points, who no longer have the benefit of the river. Extra units should be placed in E-14 and H-14, protecting the approaches to Leningrad, and just out of the reach of any German infantry units who may have assaulted the Dvina in the first impulse. Also stacking large units together just invites attacks from the dreaded Stukas.

If an armored or cavalry unit has somehow survived in the Baltic or Western Military Districts, it should be moved to the corridor between the Dvina and Dnepr Rivers, just out of reach of the German Infantry in the first impulse (usually N-14, N-15 or N-16, depending on the initial German success). If no unit from one of these fronts is available, the 6th Armored in Minsk can be used for this purpose. I don't generally recommend garrison-

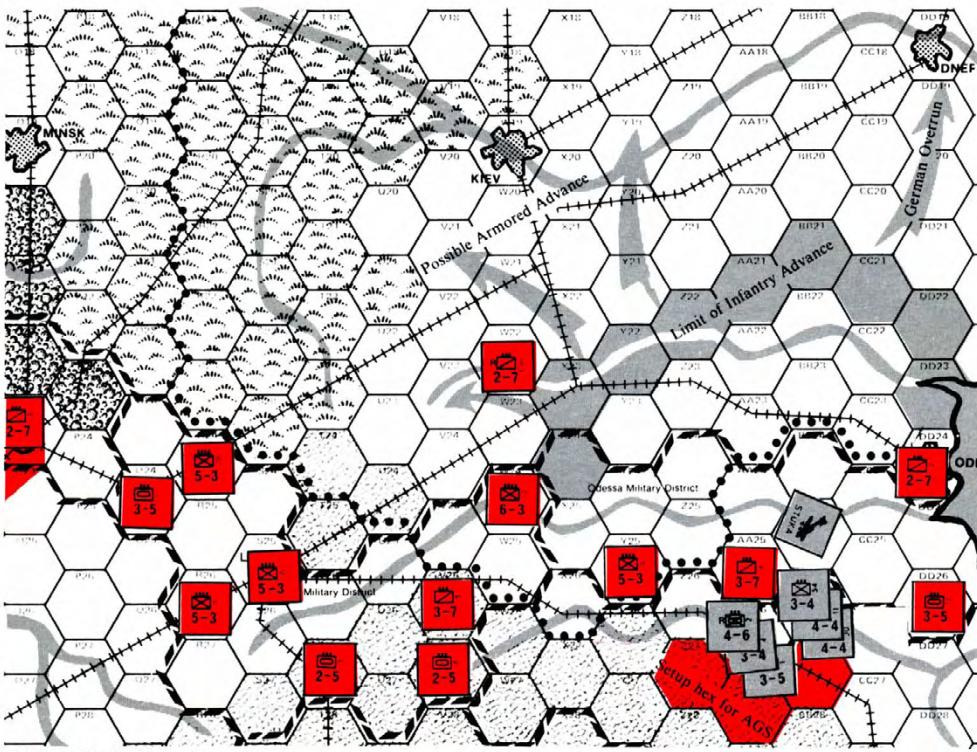
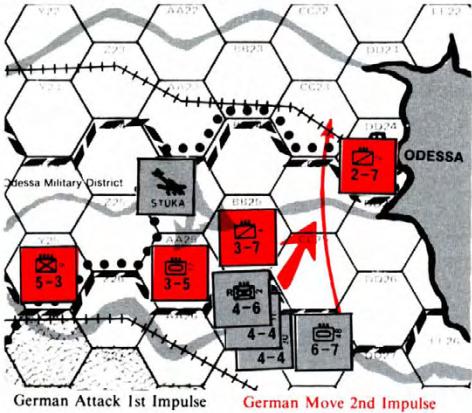


DIAGRAM 6 The Rumanian Romp

DIAGRAM 7 Assault on Odessa



ing Minsk as units defending there will usually be attacked by German infantry having nothing better to do during the second turn.

The primary concern in the Kiev District is the extrication of the defending units, by rail whenever possible. One unit should be left on U-24 or V-26, slowing down whatever forces from Army Group South that are attempting the route through the mountain pass. The other units should try to reach the Bug River line or at least protect it from being flanked in the north. Should the German reach any part of the Bug (in particular BB-22 or any river hex north), it would be worthwhile to try to drive them back, even if it means attacking at 1-1. The southern production centers are valuable and must not be given up easily.

Garrison units are mandatory in Rostov and Sevastopol (and Odessa if the Germans have not yet captured it). A cavalry unit in Sevastopol can be a severe irritant to the German, as its extended range can harass the German supply lines. Sea movement is a very effective way to reinforce these ports. A unit in Dnepropetrovsk and an additional unit in Stalino is desirable as both cities can be reached by an armored unit that has successfully invaded the southern coast.

basic system and set of tactics that will aid the Russian cause. Modifications are encouraged, but extreme care must be taken when doing so, as subtle changes can have drastic results in unsuspected areas. For example, consider the Russian defense in the Odessa district (Diagram 4). Some Russian commanders may be tempted to shift the 12th Armored one hex, from Y-24 to Z-24. After all, the Odessa line would still be secure even if the 4th Cavalry is overrun, and this slight shift provides the 12th Armored with the benefit of the river line, should it be attacked in the second impulse. Seems harmless, right? Well, this particular defense (which I call the Odessa Triangle because of the pattern of the three units defending in the district, and also because of the strong association with the Bermuda Triangle, where ships, or units if you will, are lost and never seen again) has one weak point which the German can exploit if he is willing to use two Stukas.

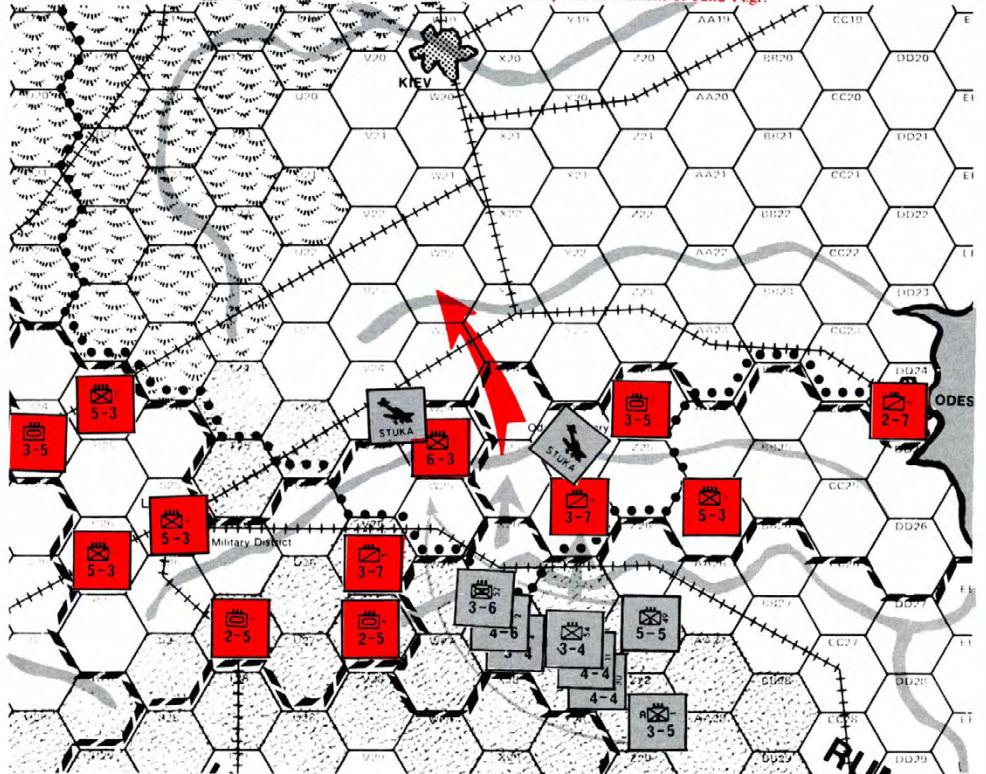
The initial placement for the German units in this attack is critical, because the mountainous terrain is restrictive to most units (see Diagram 8). The 4th Cavalry is overrun (they really seem to suffer in my examples!) by the Rumanian Army Group, allowing the 52nd Panzergrenadier and the 49th Mountain to reach X-25 on the first impulse, where it can now attack the 12th Infantry at 4-1. If an exchange results the mountain unit is eliminated, allowing the 52nd to reach W-22 in the second impulse. This move defeats almost every objective that we had for the Kiev army, as it cuts both rail lines, as well as severely retarding movement for those units. Not a comfortable situation for the Russians. Also the attack shown only utilizes two units (the 52nd Panzergrenadier and the 49th Mountain) from Army Group South, as well as leaving the Rumanian Cavalry as a small reserve. Depending on the whim of the German, he can add as much pressure as desired in Rumania, starting units on X-28 or in front of Odessa. And all you did was move one unit one small hex!

Barring some fantastic die rolls by the German, the Russian should have enough units to fill most of the deployments mentioned above. Judicious use of rail movement should provide the necessary mobility to get the units where you want them. And with a little help from the weather, you might find most of your production centers intact when spring rolls around.

One Final Example

The Viipuri Defense comes with no guarantees whatsoever, but it should provide the player with a

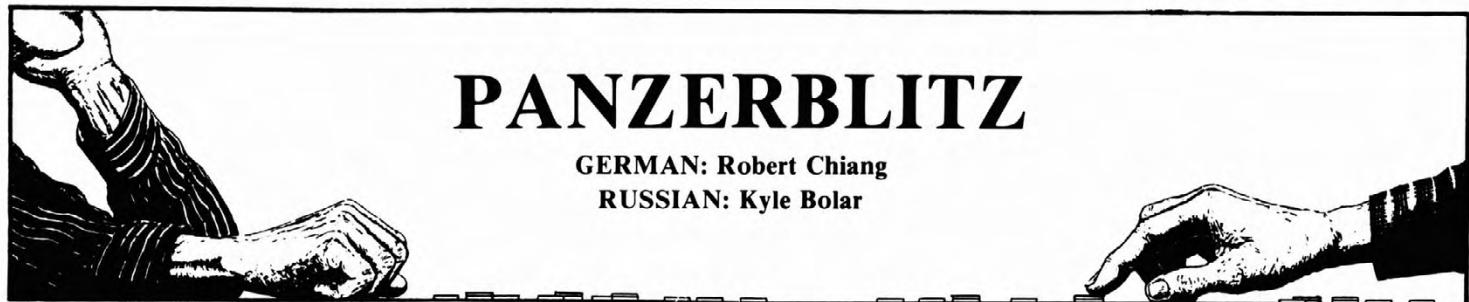
DIAGRAM 8 The Odessa Triangle



PANZERBLITZ

GERMAN: Robert Chiang

RUSSIAN: Kyle Bolar



One of the most frequent criticisms of the Series Replay is that the players involved are "turkeys"—not at all possessed of any considerable amount of expertise. This sort of complaint always draws a smile here as we recognize more than the critic that hindsight is 20/20. Having one's play laid bare for all the world to see takes a certain amount of intestinal fortitude and perhaps questionable intelligence, but it is doubtful whether 98% of those who complain could do any better and play the "perfect" game. After all, taking advantage of an adversary's mistake or faulty strategy is what wargaming, and oftentimes war, are all about. Nonetheless we asked leading AREA competitor Robert Chiang to lay his expertise on the line in this Series Replay and he responded in fine style. Mr. Chiang built his fantastic AREA record exclusively on PANZERBLITZ victories and is recognized here as the master of his craft (PANZERBLITZ), in much the same way the name George Phillips is synonymous with expertise in STALINGRAD; Tom Oleson in ANZIO; or Dave Roberts with the classics in general.

Chiang's comments are so comprehensive and instructional that we've foregone the customary neutral commentator and opposition comments in favor of a clinical approach by the acknowledged master of the game. All of which is not to brand Kyle Bolar as a "turkey"—he's a 1600 rated AREA competitor and is one of the few who can boast of a win over Chiang; a select fraternity which may be added to now that Robert has bought ANZIO for a head to head confrontation with the No. 2 rated AREA performer, Tom Oleson.

This game was played by mail with combat resolved on the FTF CRT. The real space LOS determination optional rule was used and the Russian player was allowed to use the optional ammunition rule in exchange for a fourth halftrack in the German OB. Most important of all, the game itself is the Mark Saha modification of Scenario 4 as it appeared in Vol. 11, No. 1 of the GENERAL. The modified victory conditions follow:

The Russian attempts to reach Board 1, NOT Board 3 as stated on the Situation Card.

GERMAN VICTORY CONDITIONS: Marginal—German losses are held to less than 15 and not more than 30 Russian units on Board 1 (not #3!). Tactical—German losses held to less than 10 and less than 20 Russians on #1 board. Decisive—German losses held to less than 5 and less than 10 Russians on #1 board.

RUSSIAN VICTORY CONDITIONS: Russian gets a Marginal if German does not get a Decisive. Tactical—Russian gets a Tactical if German does not get a Tactical or better. Decisive—Russian gets a Decisive if German does not achieve Marginal or better.

No draws—highest Victory Condition wins!

RULE INTERPRETATIONS USED IN THIS GAME

It is recognized that many of PANZERBLITZ'S rules can be interpreted in more than one way. At the same time, one of the prerequisites of any potential series replay game is that it be "legal." Potential controversial rule interpretations thus should be written out before the game begins. This not only helps the players, but serves the third party judge, in evaluating each player's moves and tactics. The following interpretations concern only some of the more relevant rules of particular importance to this scenario modification.

TERRAIN

All units are assumed to be able to move at the full road movement rate onto the board through road hexes on the board edge. For purposes of entry onto the board, 2G10 can be considered a full road hex.

The outer edge of the pond on board three, consisting of the six hexes adjacent 3W4, cannot be interpreted as a continuous gully for movement purposes around the pond edge. For example, a unit moving directly from 3V4 to 3W3 must expend the movement penalty for leaving a gully.

MOVEMENT

The road bonus is not negated in a town hex, if that hex is occupied by a wreck or a friendly unit. All units expend only $\frac{1}{2}$ MF per hex when traveling through town hexes, regardless of whether traveling individually or with a stack. The only exception is for units executing OVRs or CATs during the current turn. Such units expend 1 MF per hex when traveling through town hexes.

Wrecks affect movement for German and Russian units without distinction to the nationality of the moving unit (unlike in the case of stacking). Units of both sides may move through double or triple wreck hexes (although Soviet units may not end their movement on such a hex, of course). This in effect renders redundant the purely gamesmanship German tactic (with no basis in realism) of creating double wreck hexes simply to prevent Soviet passage through such hexes (while having no such similar effect on German units).

There is no "time/space ratio" factor pertaining to any movement in this game. Given two vehicle units starting from the same road hex, and moving individually in the same direction along the road, each unit may expend up to its maximum printed movement factor.

COMBAT

When executing a normal combination attack versus a mixed stack of armored and nonarmored targets (in a non-town hex, of course), predominance of target type is determined by the number of units of each type, not by the total number of defense factors of each target type.

VICTORY CONDITIONS

Soviet units on half-hexes between board one and the off board (but not board three) count toward Soviet victory condition fulfillments.

Preliminary Comments

Scenario four is one of the most widely played situations in PANZERBLITZ, and consequently much has been written about the situation. From my experiences, I have never had any doubts about the play balance of the scenario—an experienced Soviet player could not lose. This is in direct contrast to the opinions expressed by Richard Plock and Roy Easton in the Vol. 12, No. 2 series replay. Yet my view is shared by all the many PANZERBLITZ players that I've faced in FTF and PBM games. Similar opinions concerning the play balance of the situation have been expressed by Mark Saha (Vol. 11, No. 1) and Carl Hoffman (Vol. 11, No. 6), in recent issues of the GENERAL.

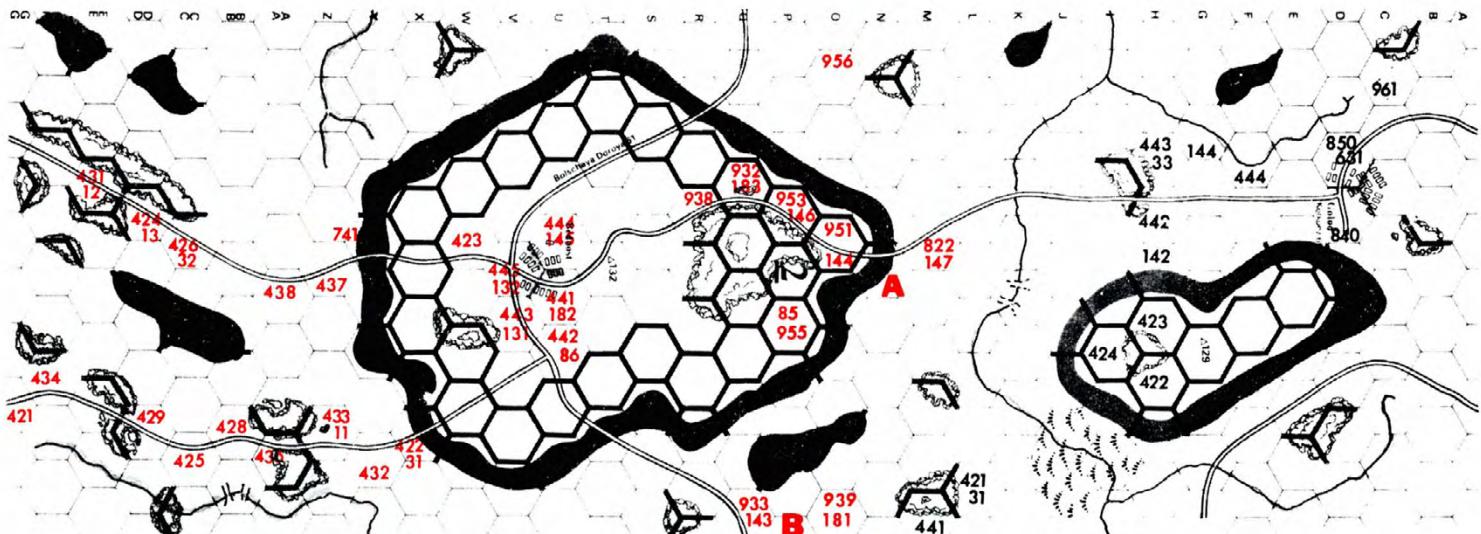
Basically, the flaw is the victory conditions—the Germans have no room to execute a mobile defense, without giving up victory. They are forced to conduct a static defense around the Grabyosh—Golad region for most of the game. Hence, their only advantage, greater firing ranges, can be nullified easily and quickly by an aggressive, experienced Soviet player (especially one who can crack the vulnerable German defensive line, before the SPAs can reach the hill 107 positions). Once the hill 107 positions are forced (usually by the Soviet fifth turn, at the latest, if the Soviet player knows what he's doing), Grabyosh must be evacuated by the defender, and any German victory is unattainable.

Mark Saha's modification was intended to rectify the imbalance of Situation 4 by drastically modifying the victory conditions of both sides. Mark's modification, unlike most variations produced by players, has turned out to be spectacularly successful in my PBM circles at least. The victory conditions are very demanding on both sides, and the modification requires a very high level of expertise to play well. The Soviets must sustain a continuous, aggressive offense across the entire length of board three, yet must protect their precious armor early in the game. The Germans, on the other hand, must execute a near-flawless mobile defense, containing the Russian advance to a minimum, yet avoiding a decisive engagement, until the end of the game.

I favor the Russians, (even with one halftrack added to the German side) mainly because they have a larger margin of error—German mistakes are usually more costly to the German player, than similar mistakes to the Russian player. Any German mistake on the first few turns can usually be exploited by an experienced opponent, into a Soviet decisive victory. And most German players usually make that mistake.

FIRST TURN COMMENTS

The Germans are most vulnerable on the first turn. The only advantage the defender has is his longer ranged units. Yet, there is no real good firing place to put the SPAs on the first turn. Hill 107 is out of reach until turn two, and hill 129 is obviously too far forward, and thus unsuitable for any firing units, let alone the important SPAs. Therefore the



TURN 1—All forces are shown except Wespe (621) and the 88 (41) which sped ahead to H6 on

board 3. All units are mounted. Russian stacks: A=954/142.

SPAs usually go in Golad (and to 3F8 on turn two), or to say 3C5 (and to 3J9 on turn two). However, if the SPAs are to attain a safe dominating position on hill 107 on turn two, the first turn German defensive forward screen must stop any and every potential Soviet thrust on the Russian second turn. Hence the Germans must construct a near-perfect opening defense, or pray that his Soviet opponent is too inept to see his opportunity.

The German player must unload rifles on 2G3 and 2H6 if they intend to safely hold the I4 forest on the first turn. If I put a HT (halftrack) on 2F4 and leave the 2G3 gap open, Kyle can blast the unit off the map with a 4-1 shot from the combination of the triple-firing mortar and 821. 821 would be subject to German counterfire, and slow down following Soviet units moving on the road. However, with the HT wreck on 2F4, 822 could unload 147 on slope 2F3, or 2E3 and 2D3—if the German player didn't put a truck on the 2E3 gully hex to block further movement. Likewise, if I only put a HT on 2H6, Kyle can 4-1 that unit with 955, 956, and triple 85, allowing the town (Golad) to be threatened on three sides by 822 (147), 821 (184), 951 (144), with the passengers unloaded. (The Soviet player in the Vol. 12, No. 2 series replay could have smashed the German first turn defense and won the game easily through such a move.)

The Hummel needs to be placed in Golad on the first turn, to prevent, or rather deter the Soviets

from firing 821, or moving 741 to N6 on turn two. 444, which unloaded 144 on 2G3, is open to fire from the mortar and 821. If the Germans pull the Hummel back to 3C5 on German turn one, the defender could only hit 821 with 3-1 odds. That's the best possible odds, assuming the attacker doesn't dump a truck on 821's hex, so as to "dilute" the German direct fire (forcing a multiple attack, and reducing basic odds on 821). 631's presence should convince 821 to move along, and give 444 a chance to survive. If 821 didn't stick around, the Russians could bring the SU-152 all the way up to the slope 2N6. If Hummel wasn't in Golad to add to the defender's forward firing power, the Soviets could get away with such a move, dumping say a recon also on the hex, and diluting German counterfire to at best 1-1 odds on the SU-152 (the recon also must be hit in a multiple attack at at least 1-1 odds). This would probably create a hole on 2D3 in the German second turn defense. Hence the vital importance in keeping one SPA in Golad on turn one, to deter such a move.

SECOND TURN COMMENTS

The German second turn move is usually predictable—a solid wall of screening units along the C, D, and possibly E rows across the width of board two. Due to the presence of 86, I put 961 on 2D3, rather than a HT (a truck wouldn't do for obvious reasons). This has a disadvantage of forcing

961 to stay in the Grabyosh region on turn three, as it can't reach 3H3 or 3I3 on the next turn. As a result, I put 840 on 2D7, so it could reach either of those two hexes on turn three.

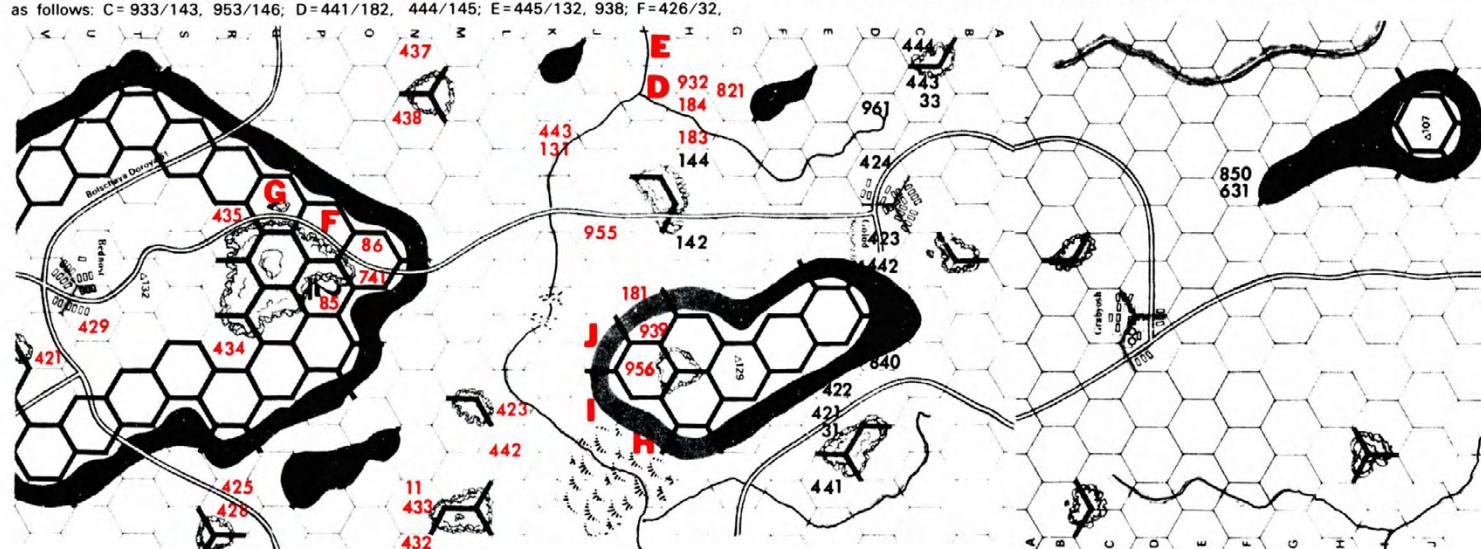
This screen is not as "economical" as it could be, as 421 could go on 2D8, 422 on 2D7, and 840 on 3F8. However, I want to keep my option of dumping a sacrificial truck on 2D8 next turn, should I wish to slow down the Soviet threat at infiltrating along the long gully on board three on subsequent turns.

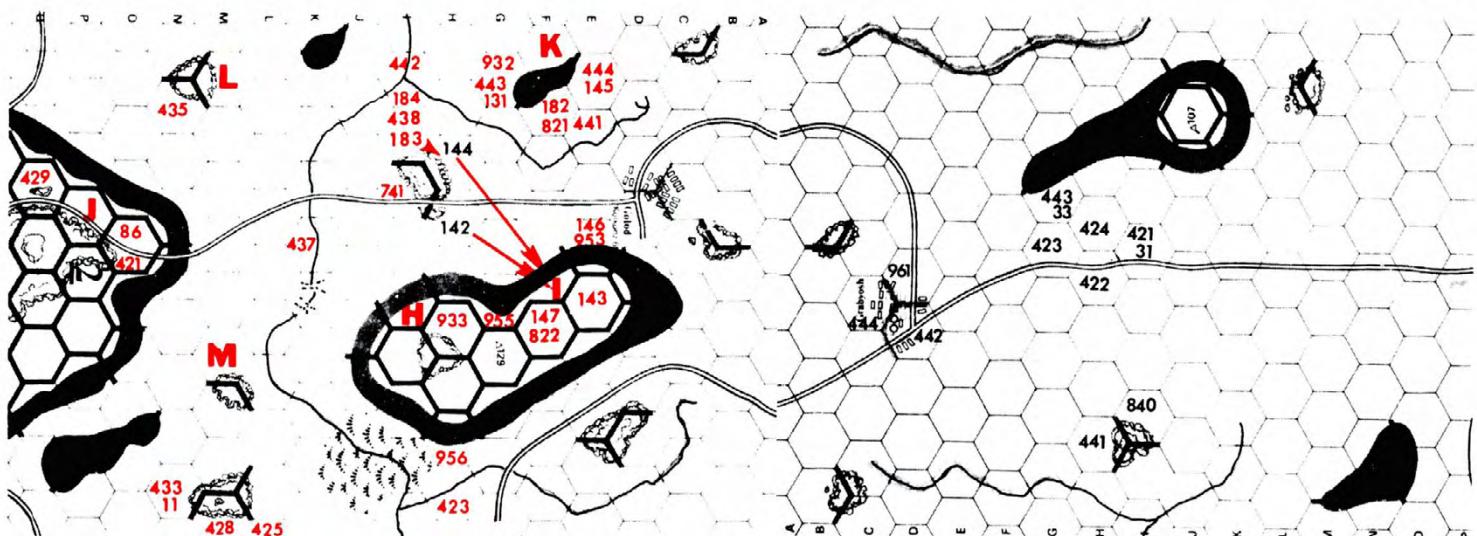
The SPAs predictably went to 3F8. Some people would place 621 and 41 on hill 107. But this is the Saha modification, not Scenario 4. Those SPAs are going to have to defend Opustoschenia and the environs for the second half of the game. If I put 621 on hill 107, that could cause problems later in the game, with possibly the SPAs not being far back enough to deter early Soviet infiltration in the V, W, X, and Y row gully on board three on Soviet turn six or seven.

441 could be successfully surrounded, but it would probably be too unit consuming to the Russians and it would play into the German hands of exposing Russian tanks to SPA fire on non-slope terrain. The Russian player will undoubtedly unload some infantry from tanks on adjacent slopes: 2E5, 2E2, and 2F8, with possibly an infantry on 2E3. Infantry aren't worth killing—only tanks,

TURN 2—Again all forces are shown except the Wespe and 88 now at 3U6. Stacks are composed as follows: C=933/143, 953/146; D=441/182, 444/145; E=445/132, 938; F=426/32,

424/13; G=431/12, 422/31; H=822/147, 951/144; and I=954/142.





TURN 3—This time Hummel (631) and Nashorn (850) join the Wespe and 88 ahead of the illustration at 3Q6 and 3W8 respectively. The Russian attacks first hitting 144 with a 1-1 CAT from 183 with no effect. The German has more luck; eliminating the transported 144 Rifle in stack 1 at 3-183 with a 1-1 CAT.

1 with infantry fire from 142 and 144. Russian stacks are composed as follows: H = 939/181, 423; I = 954/142, 951/144; J = 85, 434; K = 445/132, 938; L = 426/32, 424/13; and M = 431/12, 422/31.

as far as the Germans are concerned. There will be easier targets—infantry passengers—in the second half of the game. An SPA should either shoot a tank, or move farther back every turn, at this early stage.

THIRD TURN COMMENTS

As I expected, Kyle was no fool; there are no easy tank targets in sight. Every Russian tank is either out of sight, or on a slope. And tank targets are the only thing worth shooting at. I could flame 821 or 953 by firing both 850 and 631, but that would be a weak move, when taking the entire game situation into perspective. If 850 and 631 fired, they must retreat next turn, and can't contribute to the immediate defense of the forward screen of HTs and trucks. Hence, the defender will have very little long-range support, should the Russians decide to simultaneously cut the main road from Grabyosh and Opustoschenia, and assault the former town. (The purpose of such a move would be to disrupt the orderly German retreat on the subsequent turns.)

Besides the immediate tactical disadvantage of firing 850 and 631 this turn, the move has

detrimental long-range effects in the future. Those units could not contribute at full effectiveness to the defense of Opustoschenia, should the Russians attack the town on their sixth turn move (a good bet). 850 and 631 could only reach 3W8 by the German fifth turn. And 3W8 would be within range of the attacking Soviet tanks, when Opustoschenia is assaulted.

The basic point about using SPAs in the early part of the Saha modification, is that they should, optimally, fire at tanks, and then only when one unit is needed to kill a single tank (firing at half range or less). That's because the long-range killers are vital to the defense of Opustoschenia. They need to be in safe positions on the far side of the V-W-X-Y-Z gully when the great Soviet assault on the town occurs. Any firing SPA or Nashorn obviously cannot move that turn, and runs the risk of getting caught too close to the Russian tank guns around the time of the Opustoschenia battle.

The positioning of the Soviet infantry, and the close proximity of the Soviet armor to 2D3, necessitates a "safe" withdrawal of the German screening units back to Grabyosh. The hole on 2D3 can only be filled by an infantry unit this turn, and

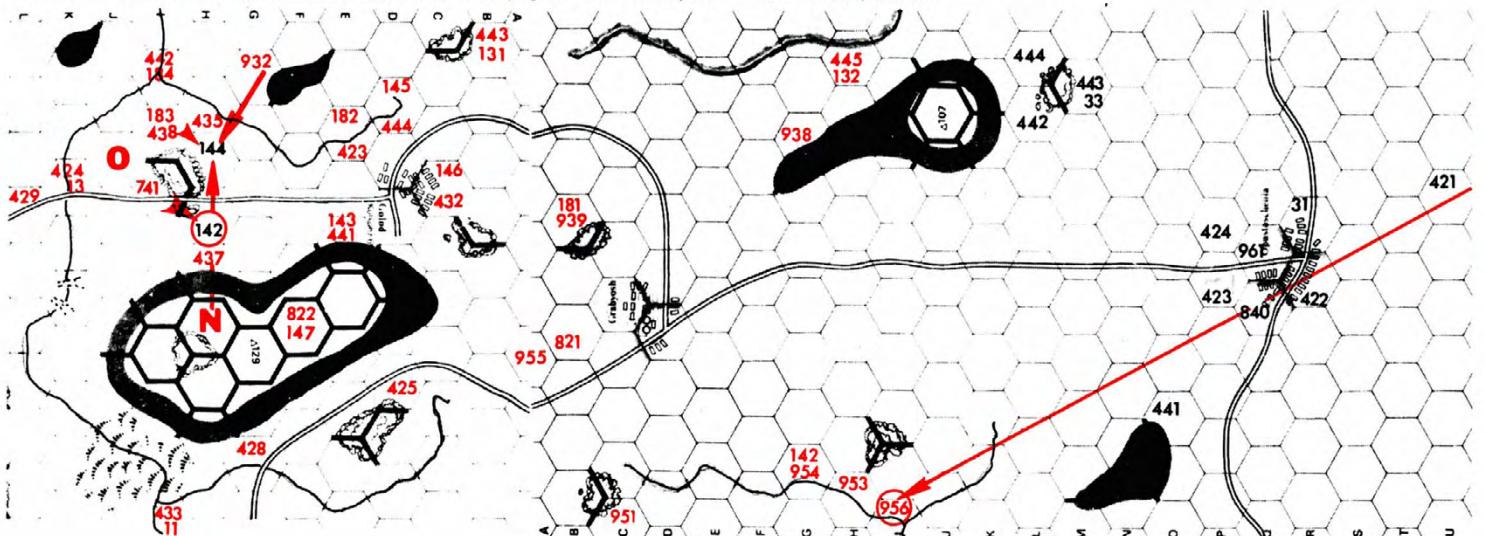
there are none left. Hence a hole on 2D3 is inevitable. Any units on the crucial hexes 2C2, 2D4, 2C4 and 2D8 risk CATS, and probable dispersal and consequent destruction. Yet, if I wanted to move my 850 and 631 to 3J9, I would have to sacrifice units on the first three hexes. Otherwise, the Russians could reach the lower slopes of hill 107 next turn, and force the big artillery units off of 3J9. Kyle's move illustrates the ease with which a good Russian player can crack any defense based on the hill 107 positions.

With my SPAs back in Opustoschenia, I must withdraw my forward screen to defend the approaches to the town: the 313 forest, Grabyosh, and the forward slopes of hill 107. The Wespe on 3W8 covers the gully and the back of Grabyosh, while 850, 840, and 631 cover the front of the town (the side facing Opustoschenia). Two HTs and 961 garrison Grabyosh itself. The 443 and four trucks simultaneously cut off the central road (making it difficult for the Soviets to make a banzai type attack along the road), and deny 3G7 and 3H8 to the enemy.

A more risky move would be to position three additional units (probably two HTs and one truck)

TURN 4—Russian trucks 421 & 434 tally behind the illustration in the woods of 205 and 2P5. The Wespe and 88 remain at 3V8 out of view as do the Nashorn at 3V9 and the Hummel at 3X8. The Russian deals with the delaying German infantry harshly eliminating 142 with a 4-1 by the

adjacent SU-152, while 933, 932, 183 and 822 combine to disperse 144 at 3-1. The German Wespe and 88 retaliate by knocking out the T34-85 at 311. New Russian stacks: N = 422/31, 933; O = 426/321, 431/12.



on 3C6, 3B6 and 3B7, with maybe 850 on 3J8. The Germans would have to either leave the central road open, or leave 3G7 and 3H8 open to occupation by Soviet armor. Such a move is vulnerable to a possible disruptive Soviet fourth turn move. The Russians might counter with something similar to: 444-3K6, 441-3G6, 445-3F5, 132-3F6, 144-3E5, 131 and 443 on 3E6, 951-3C4, and 432 on 3B4. Such a move would make it difficult to execute an effective German screen on the next turn, even though the defender could extract his units from Grabyosh, by firing his long-range units. Control of the game might swing to the Russians, and the Germans would be in the soup on later turns.

FOURTH TURN COMMENTS

Kyle has taken advantage of 631 and 850's positions on ground level by advancing rapidly along the gully near 3H2, and infiltrating behind hill 107. Simultaneously, he has effectively assaulted Grabyosh, with a minimum of effort, by unloading 181 on 3B7 and bringing up 821 behind the town, protected from overrun. I suppose I could leave a HT or truck on 3D5, and hope it might mess up his plans to assault Opustoschenia on turn six. However such a unit could not be easily extracted at such a long range, after the Soviets inevitably surround it. Besides I think Kyle is capable enough not to let such a unit appreciably delay the attacker's advance.

621 fired this turn, and this caused me to readjust my positioning of 631 so as to be able to cover the north-south gully on the Soviet sixth turn from a nonexposed position. I would have preferred not to shoot with 621, but Kyle offered me 956. It may have been a deliberate ploy on his part, to make sure two units (621 and its passenger, 41) could not cover the gully from 1B6 on Russian turn six. To compensate, I moved 631 to the insecure position of 3X8, but within reach of 1B4 next turn. On Kyle's next turn, I expect 821 and 953 to go to 3N3, with 954 going possibly to 3M2 or 3M1. There is nothing I can do to prevent this, unless I want to risk putting a HT on 3N2. The positioning of my HTs denies 303 and 3M9 forest area to the enemy, as infiltration routes to the gully on Soviet turn six. By holding back the Soviet armor advances on this turn, I hope to minimize the number of Russian units reaching the gully on turn six. Additionally, for those enemy units which can reach the gully on turn six, I hope to only give them the outermost gully hexes -3V4, 3V5, and 3V6. If that can be accomplished, an organized German defense can contain subsequent Soviet advances through the gully on turn seven and eight.

My considerations for a strong gully defense on future turns, has caused me to weaken slightly the Opustoschenia defense. A better defense of the town is a continuous screen of seven HTs and trucks on 303, P4, P5, P6, P7, P8, and P9, leaving a single spotter HT for 3M9. (Such a defense is not possible if the leading Soviet tanks are within OVR range, which is why I had to prevent Soviet occupation of 3H8 and 3G7 last turn.) The positioning of the HT on 3M9, but the vacancy of the two other forest hexes, concedes 3L10 to the attacker. (The forest can either be defended by occupying 3L9 and 3L10, leaving 3M9 vacant, or as above. Occupying only 3L10 is not a good idea in PBM, as the German unit can easily be pinned and trapped by a good Soviet move.) And any Soviet units on 3L10 can reach the gully on turn six. For this reason, I declined to use the long screen in front of Opustoschenia. I opted for a fully occupied 3L9 forest, relying only on the screening action of 423 and 424 in front of the town.

Another reason for the short screen defense, rather than the long screen, is that the Soviets have only armor and a few trucks to assault Opustoschensia on turn five. All the available infantry is out of range, delayed by the rear guard action of my rifles, or still in the loading process (caused by the need to unload a great deal of infantry to crack the German line on Sov. turn three). I believe 850, 621, 961, 840, and 31 should be enough to deter the Russians from launching a tank attack on the town this coming turn. True, if the Russians sent all seven available tanks (951, 953, 954, 955, 821, 938 and 939), the exposed SPAs would come under fire. But those SPAs on slopes (stacked with, say trucks) are hard to even disperse by tank fire at anything more than half range. And 953, 954, and 951 will not even be able to advance past the "O" row, due to 423 and 424. In the event of such an all out attack, 631 would fire also, with 421 going to Y8 to prevent 631 from being OVRed. The Soviets would very likely suffer severe tank losses, so such a radical attack is not likely, unless Kyle can be sure of killing the SPAs or forcing their retreat.

My two rifles on 2H4 and 2H5 (latter now deceased) have succeeded in tying down a sizable number of Soviets, including the all important JSU-152. Also, by blocking the main road, they have slowed down the progress of the Red trucks, and made it easier for me to defend board three on these turns. I didn't expect the two rifles to get a decent shot at a passenger, let alone kill the Soviet rifle (144). As an added bonus, Kyle miscalculated the direct fire odds on my 144, enabling that unit to survive, and probably delaying 741 another turn (which will in turn slow down the six trucks behind

741). All in all, I got what I wanted from my two rifles, and their sacrifice was not in vain.

FIFTH TURN COMMENTS

I have executed the standard ring-defense around Opustoschenia this turn. The outer ring around the back of the town is designed to make it more difficult for the Soviets to assault that area of the town. It also prevents the Russians from surrounding Opustoschenia very easily. Without the outer-ring, Kyle could dump 131-443 on S7, 132-445 on S6, and 147-822 on S5. Simultaneously 184-442, 181-939, 146-432, and the pesty AT guns could be dumped on the other seven adjacent hexes around the town. True, I could bust out of any encirclement by firing 621, but why waste a shot on such a target at this time? The rule that SPAs should optimally fire at only tank targets still holds. As it is, I think Kyle can take the town on turn six, with his available units, no matter what the German defense. The ring defense just makes it tougher for him, and eases my task of extracting my units, should it be necessary.

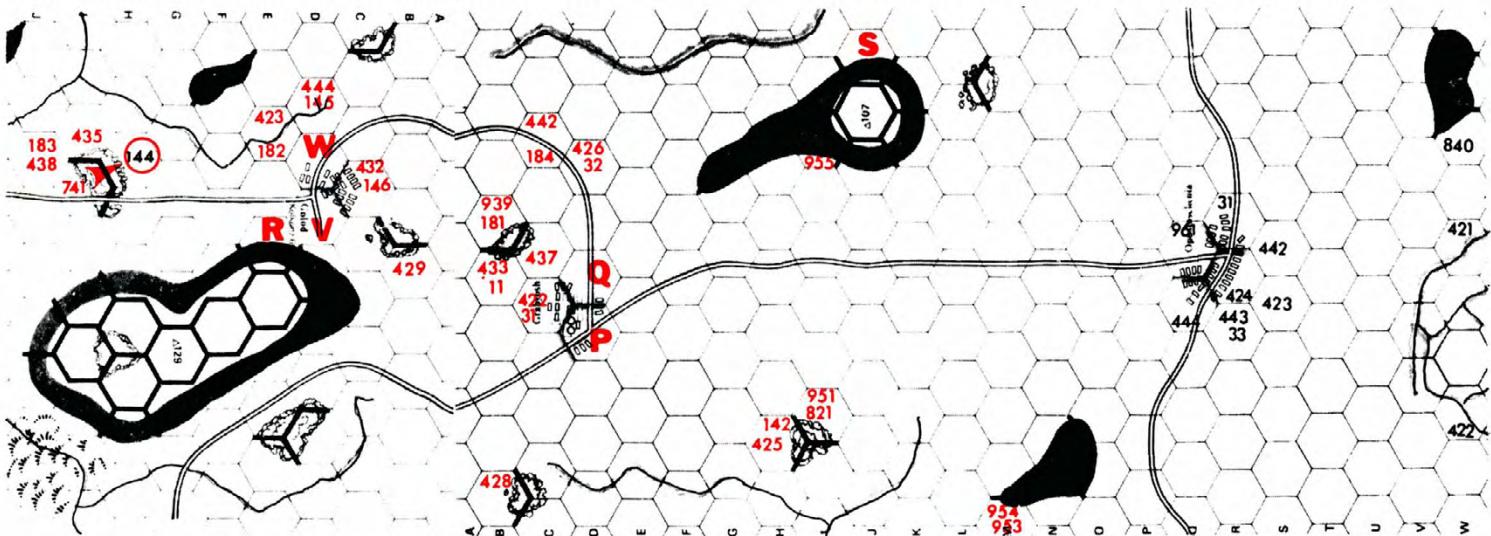
Assuming Kyle kicks me out of the town next turn, I must be able to retreat my Opustoschenia units to a safe position on turn six. Only HTs and the Panther can make it from the town to Zabvenia on turn six. Hence any other units in Opustoschenia will find themselves hung-up in some place in between. At least one truck is needed to execute a ring-defense usually; I used two. Since Kyle can't dump an 81mm on 03 next turn from his present position, I could put my two trucks, 423 and 424, on say X7 and Y7. Of course, if Kyle neglects to dump his mortars in the right places around P7, I could use the trucks to help erect a wall of non-OVRable positioned units in front of Zabvenia. 840's position on W8, although relatively exposed, would be used to anchor such a defense. 840, of course, could be used to add firepower or the threat of an OVR against any Soviet tanks fooling around Opustoschenia. And if it was forced to retreat, 840 could always go to 3CC6.

The gully should be pretty well bottled up this turn. At least partly due to my turn four defense, Kyle can only reach the gully with 953 and 954. 441, 422 and 421 will limit any penetration to only the three outermost gully hexes: V4, V5, and V6. 631, and if necessary 840, are ready to greet any Russian units coming that way.

The main blind spot in virtually any Opus-toschenia defense is the southern flank. This game is no exception. 31 is positioned to provide a minimum of counterfire against HTs or tank

TURN 5—Out of range of the illustration are the Germans' 441 at 1X3, 850 in Zabvenia, 621 at 1CC6, 41 at 1DD5 and the Hummel at 1B4. The SU-152 wipes out 144 at 4-1 but is left far behind.

the main action. New Russian stacks are as follows: P=822/147, 933; Q=443/131, 932; R=441/143; S=445/132, 938; V=434/85, 424/13; and W=431/12, 421/86.



THE ARAB-ISRAELI WARS

Modern tanks clash in the desert! Modern Russian, American and British tanks hunt each other across the sand dunes of the Sinai and the hills of the Golan Heights, amidst all the latest weapons of war: wire-guided missiles, artillery rockets, recoilless guns, "hunting" helicopters and fighter-bombers striking from the air. These are the dazzling victories of *THE ARAB-ISRAELI WARS*—taken from the Middle East wars from 1967 to 1973, these are the battles that made recent history.

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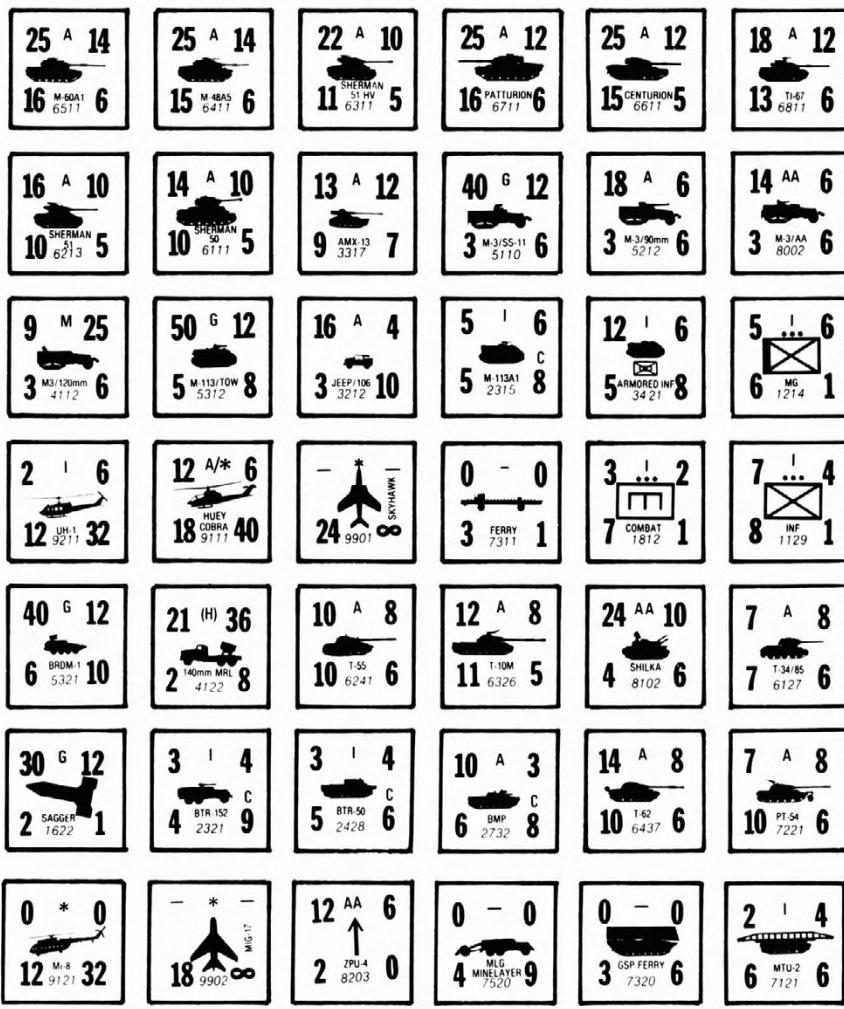
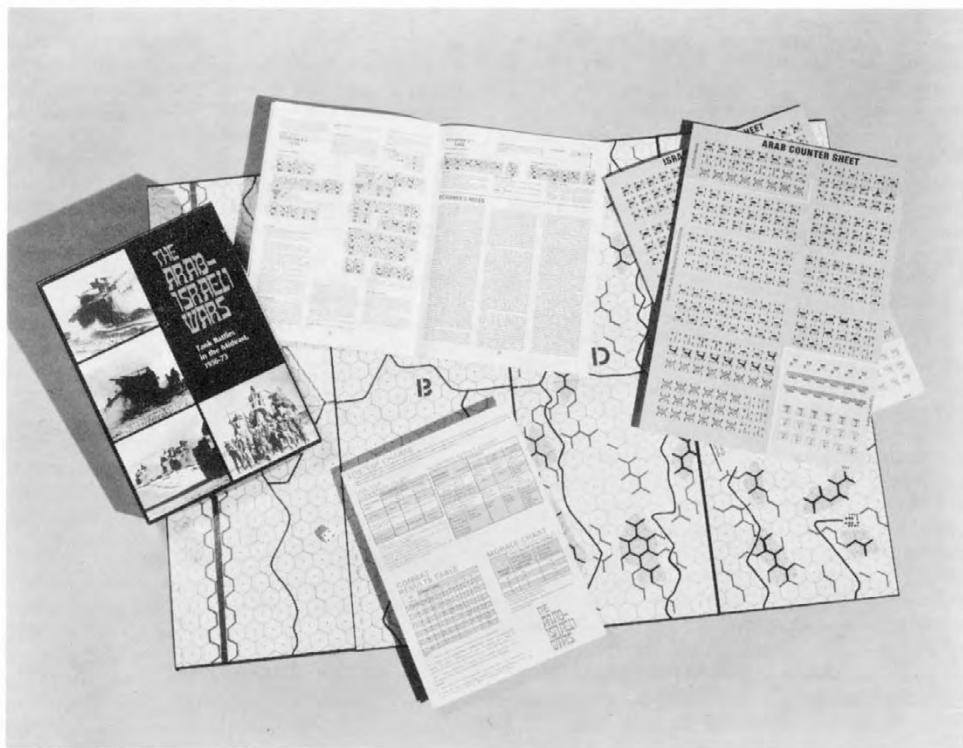
The units are platoons, batteries and half-companies; the game system is that used in *PANZERBLITZ* and *PANZER LEADER*, Avalon Hill's games about armored combat in World War II. *THE ARAB-ISRAELI WARS* adds a new dimension, however; the distinctive features of the modern wars in the Middle East are the new techniques and tactics that the military commanders have devised for exotic modern weapons. *THE ARAB-ISRAELI WARS* includes all of these techniques, from split-move-and-fire to helicopters inches off the ground; presenting all the methods of modern combat.

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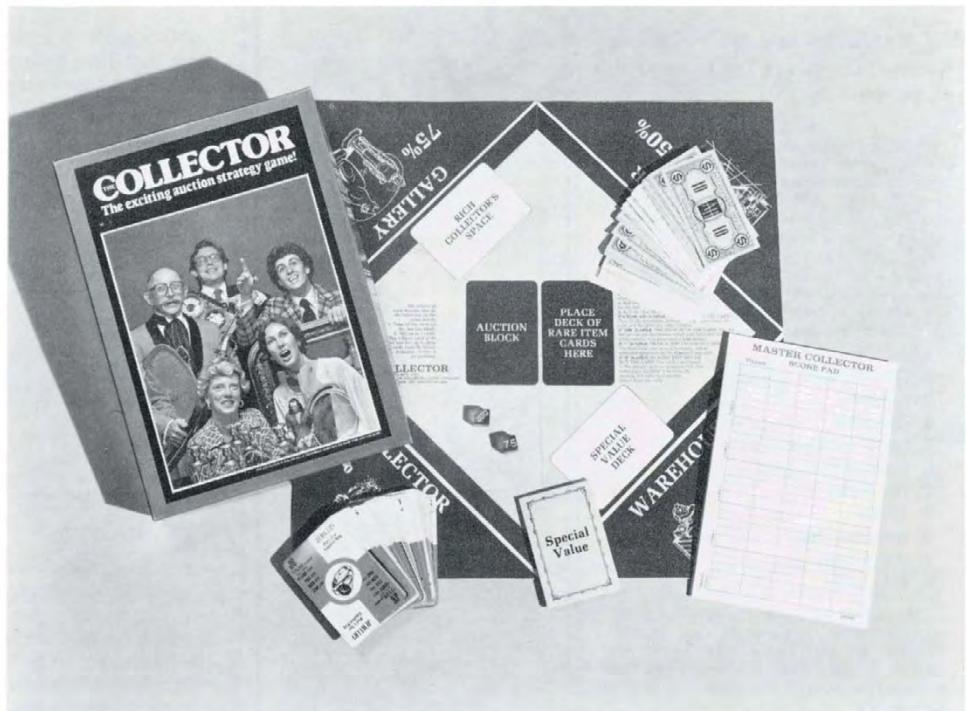
THE COLLECTOR

The world of *THE COLLECTOR*, where nothing has intrinsic worth, and an object's value is no more than the price somebody is willing to pay . . . where you can make a fortune or be ruined by the whims of someone who has more money and who WANTS what you have . . . Can you succeed in the world of *THE COLLECTOR*?

THE COLLECTOR is Avalon Hill's new game about the world of collecting rare and precious items. There are two objectives in the game—to make money and to complete the particular collections that you want. To do this, however, you must deal skillfully in auctions, and find bargains in warehouses—or pay top dollar to buy from expensive Galleries or Collectors. Bidding or buying, you must try to collect your items right before the eyes of the other players—while they're bidding and buying too! Then, you have to become a dealer yourself, trying to get a good price for the items you sell. But beware! There might be no buyers at all—or your "valuable antique" can turn out to be a worthless copy! And everyone has to watch out for the Rich Collector, who might just buy your whole collection out from under you!

THE COLLECTOR is a short, family oriented combination board and card game designed for maximum enjoyment for all kinds of competitive game players. Cards provided in the game represent valuable rare items or "connections" who can get you special deals in buying valuable items, and also all sorts of special windfalls and disasters that might occur in the world of antique collecting. Estates go up for sale, inheritances occur, experts step forward to denounce your antiques—and more.

It all makes for an enjoyable, fast-moving game that takes about 45 minutes to play. It's a good game for fun or for cut-throat competition—you've got to collect what you want and stop the other players from getting what they want! The auctions



go higher and higher, with the players bidding for themselves and against each other—and there's plenty of opportunity for wheeling and dealing to make more money and buy what you're after.

But remember—it's only when you have assembled a *complete* collection that it is worth anything!

Fast, furious and full of competition—that's the world of *THE COLLECTOR*. Now available for \$10 plus postage coupon from The Avalon Hill Game Company, 4517 Harford Rd., Baltimore, Maryland 21214. Maryland residents add 4% sales tax. Not eligible for Elite Club discount.

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to write for the *GENERAL*. If you can string words together into an interesting article format on any Avalon Hill wargame, there's a good chance you're just the person we're looking for. You can supplement our literary staff with articles of strategy, game analyses, Series Replays, commentaries, new scenarios, or variants.

All articles should be type-written, double-spaced and accompanied by a self-addressed envelope bearing first class postage. Otherwise, rejected articles will not be returned. Articles should be supplemented with illustrations and/or charts whenever possible.

Commencing with the January, 1977 issue the *GENERAL* will pay \$5 per running 10" column of edited text. Letters to the Editor are not subject to remuneration. Alternatively, authors may elect to take their remuneration in the form of Avalon Hill products, paid at the rate of 150% of the cash remuneration.

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This payment system is only valid for articles received after January 1, 1977.

RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 3-6-5
RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3

3-10-2	0-6-2	15 18-6-2	0-2-3	24-12-3	24-1-10
RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	0-2-3	24-1-10	24-1-10

3-10-2	0-6-2	15 18-6-2	0-2-3	24-12-3	24-1-10
RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	0-2-3	24-1-10	24-1-10

RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3
RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3

RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3
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RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3
RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3	RECRUIT 3-6-5	RECRUIT 3-5-4	RECRUIT 2-5-3

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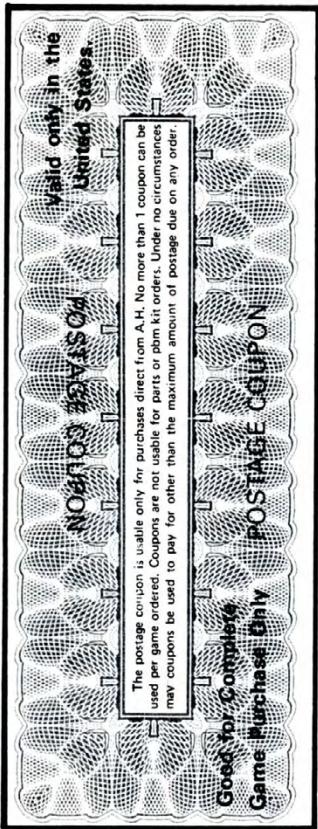
INSTRUCTIONS: Rate all categories by placing a number ranging from 1 through 9 in the appropriate spaces to the right (1=equally excellent; 5-average; and 9-terrible). **EXCEPTION:** Rate item No. 10 in terms of minutes necessary to play game as recorded in 10-minute increments. **EXAMPLE:** If you've found that it takes two and a half hours to play FRANCE 1940, you would give it a **GAME LENGTH** rating of "15".

Participate in these reviews only if you are familiar with the game in question.

1. Physical Quality
2. Mapboard
3. Components
4. Ease of Understanding
5. Completeness of Rules
6. Play Balance
7. Realism
8. Excitement Level
9. Overall Value
10. Game Length

The review sheet may be cut out, photocopied, or merely drawn on a separate sheet of paper. Mail it to our 4517 Harford Road address with your contest entry or opponents wanted ad. Mark such correspondence to the attention of the R & D Department.

Game to be reviewed next: _____



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Handwriting practice lines for the word 'apple'.

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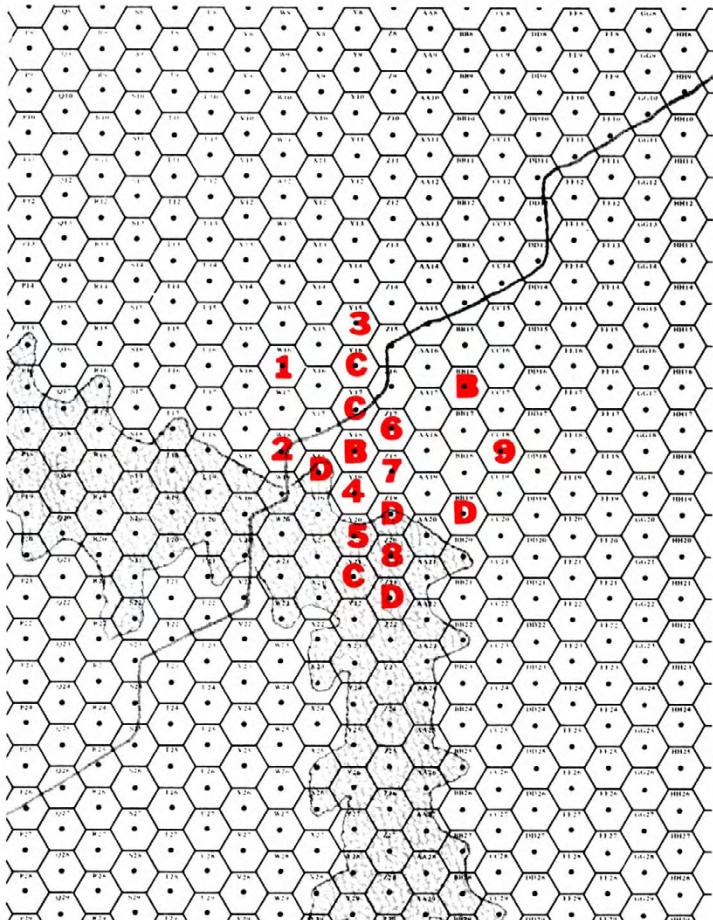
Contest No. 76

A problem in deduction, if you please.

It is early in a game of *STARSHIP TROOPERS*, you're the M.I. player, and the Bugs have already made a number of breaches. In the diagram below, "B" indicates breaches made by "B"-cell arachnids, "C" indicates "C"-cell breaches, and "D" indicates breaches made by "D"-cell units. Suddenly you realize that you can figure out the entire Bug network for these cells! Assuming that the cells are lettered in counterclockwise order (as in the example at the end of the *SST* rulebook), and assuming that arachnid engineers have not constructed any new tunnel segments (i.e. using only the 10-, 5- and two 3- length segments that each cell starts with), reconstruct the tunnel network and answer the following questions: Which cell's unit can breach each of the following hexes?

1. Hex “1”
2. Hex “2”
3. Hex “3”
4. Hex “4”
5. Hex “5”
6. Hex “6”
7. Hex “7”
8. Hex “8”
9. Hex “9”
10. Now draw in the arachnid brain “complex”, on the diagram.

Ten winning entries will receive certificates redeemable for free AH merchandise. To be valid an entry must be received prior to the mailing of the next *GENERAL* and include a numerical rating for the issue as a whole as well as list the best 3 articles. The solution will be announced in the next issue and the winners in the following issue.



ISSUE AS A WHOLE: (Rate from 1 to 10; with 1 equating excellent, 10= terrible)

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Best 3 Articles:

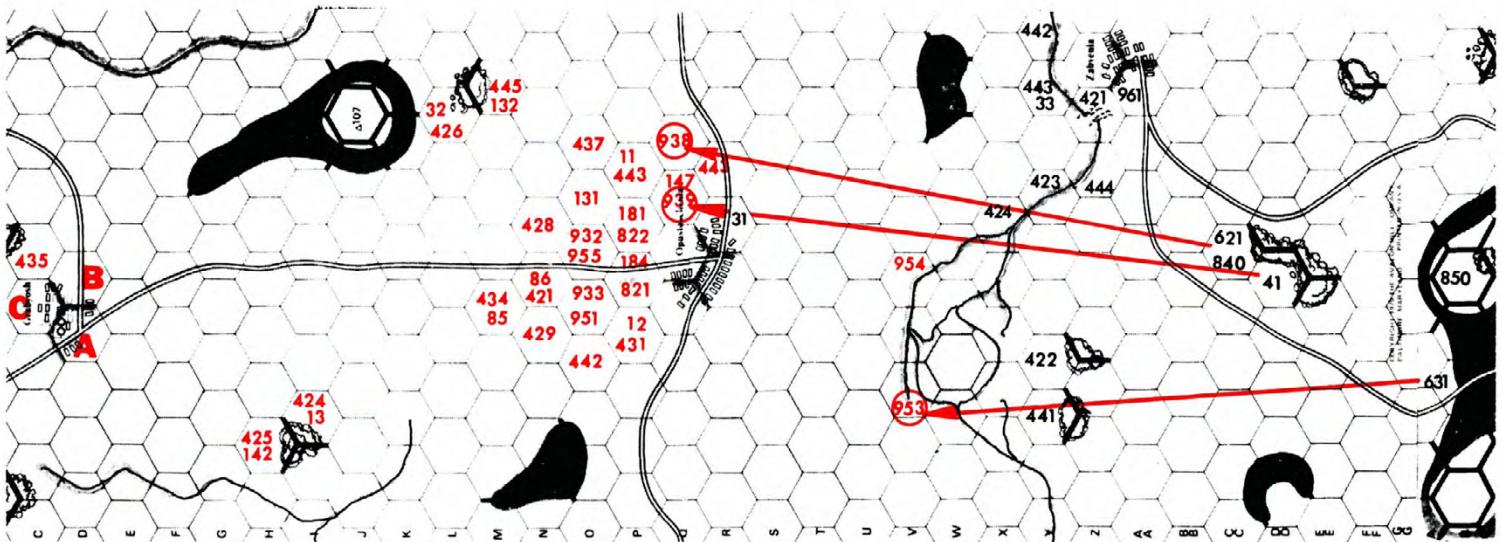
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TURN 6—All units are pictured save Russian truck 438 which is picking up SMG 183. The Russian assault on Opustoschenia costs them three T-34's as 939, 938, and 953 are eliminated in 4-1's by

41 & 31, 621, 631 respectively. Russian stacks are composed as follows: A=432/146, 741; B=444/145, 423/182; and C=441/143, 422/31.

passengers riding behind the slope. And in the extremely unlikely case that Kyle doesn't assault the town on turn six, 961 could also cover part of that region. I was forced to put 850 on 3V9 last turn, to cover that area. Hence it cannot reach Y4 this turn, which could be reached from say W8. But then a unit on Y4 is far out on the limb, and vulnerable to potential CATs from unloading infantry in the gully on turn seven. And a unit on Y4 cannot reach the important 1B6 hex in one turn. And as positioned, 621, 631, and 850 can reach that strategic hex, should no attractive targets be available next turn.

SIXTH TURN COMMENTS

Predictably, the Soviets attacked Opustoschenia in force. Kyle took maximum advantage of the ground-level positions of most of my big guns, by positioning his most potent attacking units directly behind the town. 41 and 621 cannot fire at 181, 822, 184 and 821, and my Nashorn can't hit the latter two Red units. 631 cannot use its maximum attack factor against those infantry-armor stacks. Additionally, 184 and 821 are not OVRable, due to the double armor stacks on 305 and 306 (both of the latter hexes invulnerable to most German fire). Therefore, I cannot hope to disperse 184 and 821, unless I want to fire 961 at 821 (with 631 hitting 184). 961 would be subsequently lost, as the stack 181-822 could not be dispersed. In conclusion, I see no way to hold the two eastern-most hexes of Opustoschenia (3Q5, 3Q6).

I could probably safely hold onto either one (but not both) of the two western hexes of the town. However, I would have to use most of my firepower to kill or disperse 147 and 181 (I can only disperse one of the SMGs with 631). That would be necessary to give the triple German stack on 3R6 or 3R7 a decent chance to survive the seventh turn CAT by the remaining Soviet SMG. And since I cannot put more than 23 defense factors on 3R7, there is a 33% chance of that triple stack being dispersed by the 1-3 CAT. And a successful dispersal means eventual annihilation for the defending units, as the Russians will be able to hit the stack at 4-1 odds on the subsequent Soviet turn. It is not worth the risk. Accordingly, I'm abandoning Opustoschenia without further resistance.

There is another danger in defending Opustoschenia too heavily: the Russian forward units can infiltrate the German defenses through the gully. The defender simply cannot afford to let any Soviet units get behind his forward defense. And if the

German SPAs are putting a maximum effort into holding onto one or two hexes of Opustoschenia for a turn or two longer, those T-34s may successfully penetrate past the screen of HTs and trucks west of the gully. Needless to say, any Russian unit in the German's backyard will hamper efforts to construct an organized German defense later in the game. Kyle, undoubtedly had that in mind, when he pushed 953 and 954 into the gully, while Opustoschenia was under assault.

I have erected a screen of trucks and HTs in front of Zabvenia. Kyle left the ford hex free from Russian fire. Ordinarily 741 goes on 3P7, during the Soviet assault on Opustoschenia, so as to act both as a spotter, and to cover the ford. However, the JSU-152 was delayed by the task of exterminating my rifles. I don't think it makes too much difference in this particular game, as 822's LOS on X8 prevents me from constructing a screen based on 3W9 and 3W10 (3W8 is almost always within shooting distance of the T-34s). And the Russian units are far enough back, so that even if 3Z9 was covered by the long range mortars, the Soviets could not exploit any hole there. I would only have to change the positions of two of my units, from their present positions: 421 goes on 3DD7, instead of 3Z9, and 443 goes on 3Z10, instead of 3Y9.

I could have constructed a much more effective Zabvenia defense if I hadn't opted for using the ring defense last turn. (But then if I hadn't used the ring defense, Kyle would not have needed to unload so many units in the assault!) If 423 and 424 had not been used in the defense of the town, I could have made the following change: leave X7 and Y7 unoccupied, and occupy instead W9 and W10. Those three slope hexes control the approaches to Zabvenia, and are a good position to mass armor for attacking the German defenses late in the game.

SEVENTH TURN

The time of reckoning is fast approaching. Up to this time, I have conducted a mobile defense. Due to the close proximity of board one to my present position, I may be forced to execute a more rigid type of defense on the last few turns, as I cannot afford to concede much territory on board one.

One of the remaining German objectives in this game is to kill large numbers of Soviet units. I have constructed a deep forward screen of light German units covering all major approaches to board one. My German HTs and trucks perform the dual role

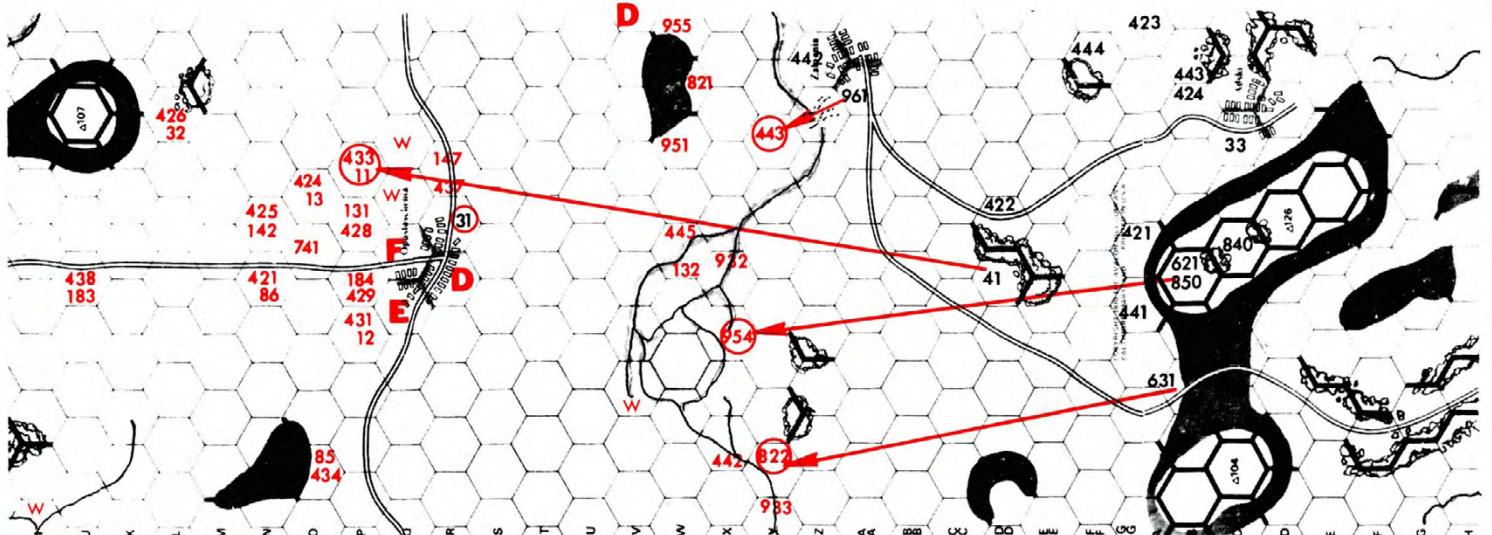
of acting both as spotter units, and blocking access to other covered terrain hexes. Every unoccupied hex in the 3DD6 and 3FF10 forests and Zabvenia is covered by interlocking fields of fire from several German units. My only regret is the 88's position. Undoubtedly 1B6 is a superior position. However the 88 was loaded on 621 previously, and it was necessary for me to consider whether it was worth it to keep the 88 loaded until 621 reached 1B6 this turn. I unloaded it a few turns back, so that not only could it participate in the battle of Opustoschenia, but the 88 would act as a further deterrent against a rapid Soviet advance past the town. I expect to lose the unit on turn nine.

It is necessary to place 441 and 421 in front of 1B6 so as to deny the Soviets the opportunity to possibly dislodge my units from that key hex. 631 had an SU-85 in its sights, and took advantage of it. Consequently only 621 and 850 were on 1B6. And Russian units 951, 955 and 821 can reach the adjacent forward slopes. And in such a position, I could not safely disperse all three units with only 621 and 850. (I'm assuming 961 will be busy firing elsewhere, or retreating.) Hence, blocking units must be placed on 1A5 and 1A6.

I conceded the Y-Z forest, even though I could have held onto 3Z4. I just didn't have the extra unit to spare. Kyle has no tanks loaded with infantry. Thus every infantry passenger (and its carrier) will have to endure a turn of fire to reach that area. No HT can travel in one turn from 3R6 to say 3Y3 in one turn. And if Kyle chooses to hide his tanks in the Y-Z forest, I can concentrate on annihilating his HTs full of infantry next turn. Undoubtedly these units will be crawling along the gully, probably out of 840's LOS.

EIGHTH TURN

The Germans will win this game, regardless of what the Soviets do on turns nine and ten. At the end of the Soviet eighth turn, the Russians had a maximum of 34 units capable of ending up on board one at the end of the tenth turn. Those units included six tanks (or assault guns), four HTs, two unloaded infantry, fourteen trucks, four loaded infantry, and four loaded artillery (or AT guns). Kyle can attain a tactical victory (mandatory minimum level of victory needed to win), only by pushing at least twenty of those 34 units onto board one at the end of the game. He certainly isn't going to get the win by killing off German units, as I have



TURN 7—All units are shown save Russian truck 422 and a 76mm ATG in Grabyosh. The Russian SMG 181 eliminates the 75mm ATG in Opustoschenia in a 4-1 CAT, but the German extracts more

than equal compensation in 4-1 eliminations of 443, 954, 822, and 433/11 by 961, 850, 631 and 41 respectively. Russian stacks: D=441/143, 444/145; E=423/182, 432/146; F=181, 435.

only lost three units so far (the 88 is on the waiting list). The size and positioning of the German firepower on the dominating hilltops should make it a task for the attacker to get even a marginal victory.

Kyle's double assault on the DD6 woods and Zabvenia convinced me to abandon the town. I had to decide whether it was worth the risk to the occupying screening units to attempt to hold onto these areas. The Germans must occupy AA9 and one other town hex, if they are to be effective in blocking the Soviet steamroller at Zabvenia. One way to do this would be as follows: 840 wipes out 441, 621 hits 145 at 2-1, and 961 OVRs 143 and 444 at 1-1 odds (no OVR possible if I flame 444 beforehand). But I need 621 to eliminate 132 and 445, as the best odds I could get with 850 or 41 firing at those units in a combination attack are 1-1. And I need somebody to kill 442 (nice wreck on the road which will slow down Kyle's trucks, come turn ten), as 631 is obviously in no position to fire. Of course, I could ignore 145, but then the rifle would probably CAT my HT on 3AA10 (with my Panther of course on AA9), and the HT would eventually be lost if dispersed. Also, any Zabvenia German units would have to be extracted on turn nine—something which may not be easy to do, if Kyle draws my fire with

potential spotters adjacent 1B6. So I'm leaving town.

With Zabvenia falling, it becomes important for me to hold onto the DD7 forest. I don't want Kyle using the place as a staging area on turn nine for his trucks, HTs, etc. If I can hold onto the terrain, I can minimize the penetration of the Soviet truck units against the Adski flank region on turn ten. If I don't occupy DD7 this turn, 423 would dump 182 on 1A3, where it could CAT any number of German units on the tenth turn, again assuming spotters around 1B6 draw my H class fire away. If I put a HT on DD7, 132 could disperse it with a CAT, eventually leading to the German unit's demise. Of course, I could put my Panther there, and ignore the recon but then I would waste a potential firing turn by 961, as I would undoubtedly be forced out of the hex on turn nine. Besides, the 88 could be saved for another firing turn, so why not just eliminate 132 and 445? That would probably force Kyle to unload an infantry unit to kill off the 88 on turn ten, and that infantry could be on the road, further slowing down the Soviet trucks on turn ten. The Panther goes to JD7, which is not only a good firing position, but it prevents 445 from occupying the hex, should my 4-1 combination attack versus the forest target fail.

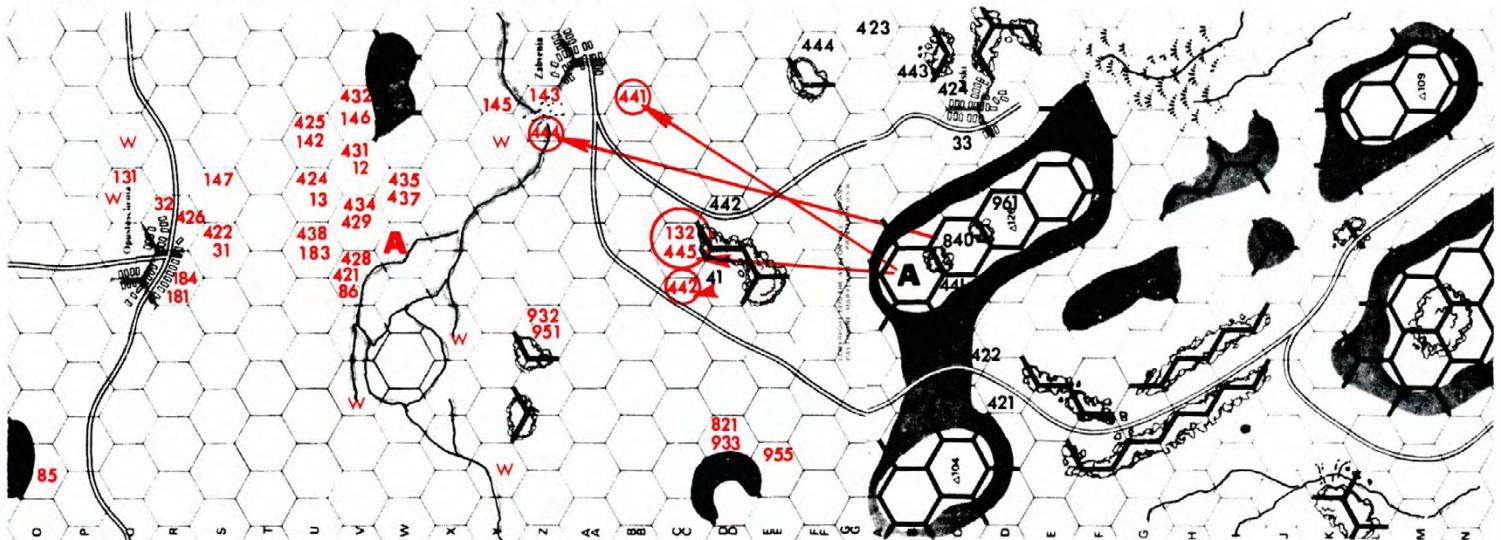
One of my main tasks is to ensure that Kyle doesn't get a decent chance to kill that fifth German unit, assuming the 88's days are numbered. So, I'm using my 840 and 850 units to pick off the two remaining HTs, rather than the more valuable 435, 437, and say 432 (146) targets. If I chose the latter targets, Kyle could really pressure 1B6 from four sides. He could position spotters maybe as follows: 932, 933 on 1B5; 441, 951 on 1A5; 444, 955 on 1A6; and 821 on 1B7. I could, at best, have only a 57% chance of dispersing or killing all seven spotters (one 4-1 shot, two 3-1 shots, and a 2-1 shot). That would draw the fire of 840 and 33 also. And if at least one of those stacks successfully spotted 1B6, Kyle could easily get 4-1 odds on any unit in the hex (remember 741 will probably go to AA9, and it does have triple fire capacity if needed). So by killing off the HTs, I can appreciably improve the odds against Kyle getting anyone to successfully spot my 1B6 units, should he attempt it.

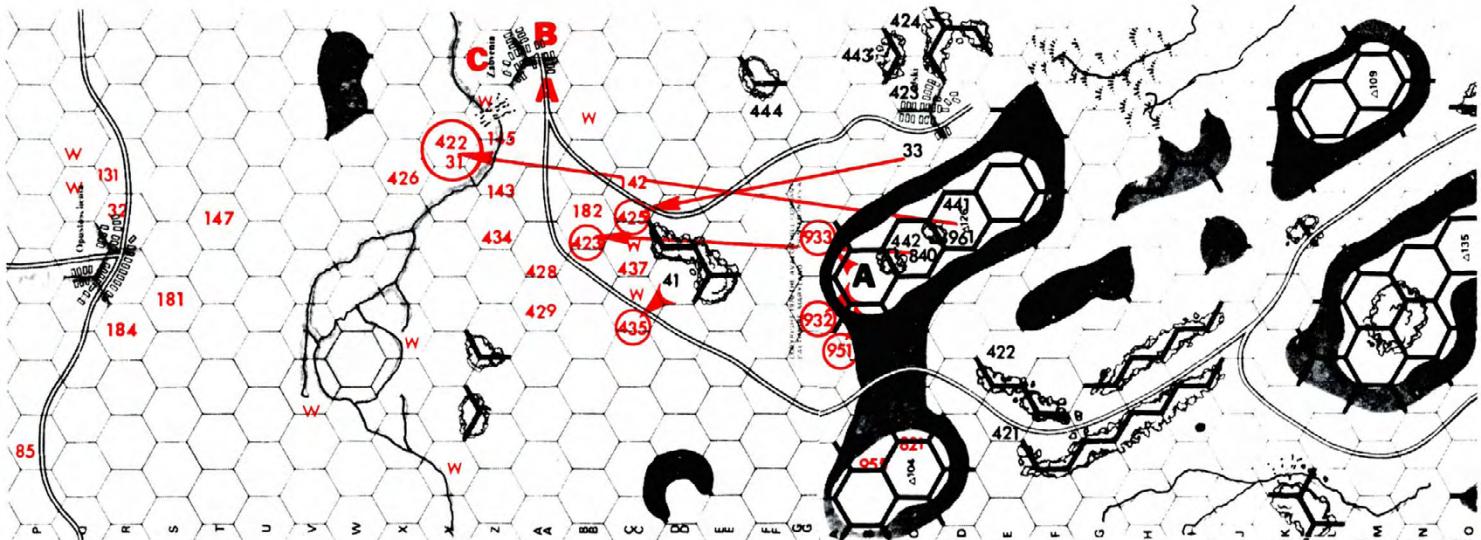
NINTH TURN

I cannot afford to lose another unit without conceding a marginal victory to the Soviets, as my 88 unit is living on borrowed time. But the 88 did its

TURN 8—All remaining units are shown. The Russian pays a fearful price in Halftracks for attempting to spot the German rear guard. 132 + 445, 441, 442, and 444 all go up in smoke in 4-1

attacks from 621, 850, 41 and 840 respectively. German stack A=621, 631, 850. Russian stack A=741, 423/182.





TURN 9—All remaining units are shown. The mayhem descending on the Russian assault this turn forces them to concede the game. 425, 422/31, 423, 435, 932, 951 and 933 fall to 4-1 attacks

from 33, 961, 840, 41, 621, 631, 850. The German victory is total. Final Russian stacks: A = 741, 432/146; B = 431/121, 438/183; C = 421/86, 424/13.

job, killing five units. Equally important, that unit tied down a disproportionate amount of infantry, which might otherwise have reached board one next turn. The Soviet truck movement on both forks of the road has been hampered by the wreck on CC5, and 142 on CC7. And both of those occurrences are the result of the 88.

I decided last turn in effect not to contest control of the northern road around the slope region, as the risk of losing a unit was probably unavoidable. Kyle sacrificed three tanks to draw my SPA fire. This allowed 822 and 955 to escape serious counterfire, and to cover the slope road hexes with tank fire from 1C3 and 1B3. I could have put my Panther on 1C4 last turn, but Kyle could have positioned two tanks to force the Panther from the hex this turn anyway. And I'm not going to risk a 2-1 shot on the Panther this turn, even if it is only a 17% chance of losing the unit. In another game under more difficult circumstances, such a tactic would possibly be necessary.

The Germans should have just enough firepower on the hilltop hexes to kill off enough Soviets on turn ten, to attain a decisive victory. The Soviets have only 18 units capable of reaching board ten, so at least a German tactical victory is assured. And of those 18 Soviet units, only the two tanks (the SU-85 and T34/85) can reach positions immune from the devastating field of defensive fire on board one. The prime targets of the remaining 16 units will be the ten trucks and three artillery pieces (two 45mm doorknockers, and an 82mm mini-mortar). And one of the trucks, 426, can only reach one hex on board one, IB9. So scratch that unit, and we are dealing with 17 units. Can the Germans kill off 8 units, using only hill 126's firepower? I say yes, regardless of the Soviet move. It is pretty much mandatory for the Russians to unload at least four of his five passengers and their trucks on the following slope hexes: B3, B4, C3, and C4. A wreck is on B5, and no carrier with passengers can reach D3, or the hilltop, or C5. 437 and 428 both can reach D3 or C2, so assume one truck on each of those hexes. One of the two remaining single trucks (429, 434) goes to B5. The last single truck and the remaining truck-passenger probably will stack up together on forest hex E3, and hope for a six on the last 4-1 shot of the game. For the Soviets to get that tenth unit over, they'll have to have that attack miss. The German tenth turn attacks will go something

like this: 621 and 631 each wipe out a stack of artillery and truck units; 840, 850, and 961 then extinguish a truck apiece (so far all targets are on slope hexes); and finally the two HTs combine to exterminate one of the trucks on D4. Final result: 9 Soviets over: the three armor, two infantry, one artillery, and three trucks.

TENTH TURN AND CONCLUSION

One of the major decisions of the Soviet player is whether to go after German units, or just to get as many Soviet units on board one as possible. When facing a defender who constantly withdraws, and engages in battle only on his own terms, an attacker in the Saha modification must be aggressive to the extreme, in attempting to both disrupt the enemy defense, and force the maximum withdrawal. The Soviet player lost sight of his objectives in the second half of the game, torn between the desire to kill enemy units, and the necessity to advance.

The Russians should have concentrated on achieving geographical objectives, since the German player could choose the time and place to sacrifice his own units. Time and time again, the attacker unloaded two, three or even four infantry and artillery units to kill immobile German AT guns. This could only serve the German player's objective of keeping as many Soviet units as possible off board one. Every Soviet unit unloaded, means another unit which will not make board one.

The attacker, by expending only the minimal amount of time and infantry on capturing Opus-toschenia and the 3DD6 woods, could have made it very close at the end. The trick is to be aggressive with the innumerable trucks (keeping all artillery always loaded up), and exposing armor (tanks) only on slopes and in covered terrain. HTs loaded with infantry, and similar tanks should keep out of the LOS of enemy guns to prevent "double jeopardy"—giving the enemy player two important kills with one shot. The 3M10 forest, the area west of the 3W9 slopes, and the 3Y4 forest are excellent hiding places. The Soviet player, unfortunately, never took proper advantage of them, but engaged in exposing his precious armor in clear terrain time after time. Without his tanks, the Russians have no potential for busting through onto board one. The exposure, and consequent loss of such units, was the last hurrah for the attacker.

IT *Continued from Page 25*

I saw that it was too late; Bruce was far gone in the grip of *IT!* and I could do nothing to help him. It was time to save myself while I could. After all, I like gaming but the prospect of doing nothing, and I mean nothing *but* gaming for however many years this monstrous project would take was unbearable. Besides, I rationalized, maybe after a few years he'll get bored with *IT!*. I began making excuses as I edged toward the door.

"Well, Bruce, you know I'd love to get into this with you but what with Christmas coming up and the convention in July and all my commitments . . ."

He cut me off. "Of course I don't expect you to play *IT!* out with me. After all, you don't have a copy. I'd be glad to buy another one," he began hopefully but the instant terror which I felt must have appeared unmistakably on my face for he continued on. "Anyway, the company people tell me they've only sold two other copies so far. One to a guy in Texas and the other to some Post Office Box number in Argentina. Argentina is a little far for correspondence so it'll have to be the guy in Texas; I hope that he's a good player though."

"You don't mean . . . "

"Of course," Bruce replied. "Play-by-mail."

It was only when I had reached home after a frenzy of savage, high-speed driving that I realized I had left my copy of *STARSHIP TROOPERS* at Bruce's house. I haven't gone back for it yet and I never will.



DIPLOMACY WORLD is a quarterly magazine on Diplomacy which is edited by Walter Buchanan, R.R. #3, Box 324, Lebanon, IN 46052 and subsidized by The Avalon Hill Game Company. The purpose of each 40-page offset issue is to present a broad overview of the postal Diplomacy hobby by printing articles on good play, zine news, listing rating systems, game openings, and printing a complete variant game and map with each issue. Subs are \$4.00 with single copies available for \$1.25. Foreign subscriptions \$5.

Orders for DIPLOMACY WORLD must be made payable to DIPLOMACY WORLD and sent to the editor's Indiana address.

The Ultimate Wargame

Charles Starks' satiric look at recent trends in the hobby makes for amusing reading and is not all that far fetched if one pauses to consider what has transpired in the past year, and the still more grandiose plans announced by publishers for the coming year. The playability/realism debate seems to have been refined to its purest form and wargamers will soon have to seriously consider whether they are game players or simulation enthusiasts.

Last Saturday I went over to my friend Bruce's house. With me I had the new *STARSHIP TROOPERS*, which I had pretty much figured out, and a new game as his Christmas present. With every anticipation of a full day of high-quality gaming, for Bruce and I are just about evenly matched, I took the last corner before his house only to gape at three huge tractor-trailer moving vans pulled up in front of his house. Two were in the street and the third had backed up to the garage.

Getting into the driveway was hopeless, so I too parked on the street and hopped out, clutching the two games. The vans were nondescript except for the letters 'IT' on the sides. Maybe for International Trucking, or something like that, I thought. Bruce had made no mention of having to move last week, but something could have come up. Not that he was the type who might need to leave town suddenly, as he was pretty well off. He had retired three years ago at age 28 to live off the proceeds of a decade as a Wall Street Whiz Kid, or such like. Since then he had done almost nothing but gaming; he was one of the Old Guard, first seduced by the now-primitive intricacies of *TACTICS II* and from year to year only getting more and more ensnared until today, when he owned virtually every game published (making it very hard to buy Christmas presents for him) and had the entire basement converted over for the use of miniatures, as well as uncountable miniatures and accessories of all kinds. A Super-Gamer, in other words.

The van totally blocked the garage door, so I went around to the front and rang the bell. His wife Mary opened the door and let me in. Mary was also a good friend of mine, although in the past year she had developed the habit of constantly carrying two dice in her hand and rattling them. What was worse was the fact that any stress in the conversation usually impelled her to roll them across the nearest surface, call out the result and then return to the conversation, all very matter-of-factly. This made her difficult at times to talk to, but she didn't seem to notice and Bruce actually seemed to enjoy it, so I had never said anything.

"Hello, Charles. Bruce is out in the garage."

"Okay, I'll go out there. What's going on, anyway?"

"It's it," she replied in a rather strange voice. This was the first I had ever heard her stutter, which was also odd, but she had already disappeared into the living room from whence came a familiar rattle and a call of "Eight".

My friend Bruce is very easy to describe; just picture a Wall Street Whiz Kid who retired three years ago and you have the idea. He still dresses a little bit like his old business self, but not so fashionably, and his obsession with wargaming gives him an odd aura, out of keeping with his clothes. He is a very friendly guy and a lot of fun even in his few moments when he is not gaming; we are one of those rare combinations of good friends and good opponents which are so enjoyable, and the thought that he might be moving away, out of face-to-face range, was uppermost in my mind.

By Charles Starks

But in fact the vans were there not to load, but to unload instead. Bruce and the three drivers had already filled half of the garage with medium sized cardboard boxes, all identical. As I came in Bruce turned around and yelled to me, "Charles! Just in time to help us out. Come over here and stack these in rows facing outward, but make sure you keep them in the order I give them to you." Obediently I put my two games down and started in. The boxes were completely ordinary, except for the fact that each was marked with the shipping label of a well-known gaming company. After working hard for half an hour we finally got the first truck unloaded, leaving the garage completely filled except for a narrow passageway to the door into the house. The drivers muttered something about lunchtime to which Bruce replied, "Go ahead, since we can't unload the other two trucks until the men with the tents get here."

"Tents!" I cried. "What tents? What is going on, anyway? Saturday is our gaming day and I find you drowning in boxes which you won't even let me look into, despite the fact that they're gaming material."

"Oh, they're gaming material, all right," he answered mysteriously. "Come on in the library and you'll see."

But entering the library only made it worse. Previously the library had been the boardgaming center of the house, crammed with games and game-related books and magazines. In the center had stood a beautiful table just the right size for most game boards and it was here that Bruce and I usually spent Saturday. But now everything including the table had been taken out and the shelves were totally filled instead with a uniform set of books, each about the size of the *Encyclopedia Britannica* and stamped with the game company's logo. Bruce reached over, pulled out a volume and handed it to me. "Open it."

As I turned to the first page I was filled with a nameless fear (as H. P. Lovecraft would have described it) and in that single glance at the page it was confirmed. For the title read: *IT!*—The Individual, Man-to-man Combat Game of World War II, 1939-1945.

IT! I had heard vague rumors of the existence of *IT!* from friends of mine in the gaming business, but had dismissed them as somebody's idea of a joke. After all, the concept was impossible; nobody would even be crazy enough to dream about *IT!* But here in my hand was proof that *IT!* existed, though in what form I could not imagine. Accurate to be sure, but playable? I doubted it, although you can never be certain until you've actually tried the game.

Bruce was standing there smirking at me with the same expression on his face as the time that he had defeated me in the final round of the Greater Western Berkshire County Napoleonic miniatures tournament. I was, I must confess, a trifle dazed, and picked another volume at random from the shelves. Number 263, I noted dully. Opening it to somewhere in the middle, I read:

"169:32:218:63a—Paratroop Preparation.



1. Paratroops are readied in the Paratroop Preparation Phase. This operation requires two turns. The first turn is consumed in equipping the paratrooper with his uniform and combat weapons. The second is consumed in placing the parachute on the paratrooper and going through the pre-jump checks.

2. Naturally, if the places where the paratrooper performs the first turn and second turn operations are physically separated, an appropriate number of turns must be spent in transferring the paratrooper by foot or vehicle from one location to the other. If this is the case the Phasing Player must, as with all forms of transport, roll on the Transport Accidents Chart to determine the safe arrival of the paratrooper at his destination.

3. In addition to this, the paratrooper may not put on his parachute unless the existence of said parachute has been confirmed by the normal production, delivery and packing process (see 502:73:124:28f). Once all these operations have been performed, the paratrooper is said to be equipped, and a Paratrooper Equipped marker is placed under the paratrooper to signify this.

169:32:218:63b—Boarding of Paratroops.

1. Paratroops must be carried on planes if they are to act as paratroops, and only on planes conforming with the Plane Readiness criteria as explained in 422:09:234:60r.

But I could read no further; the enormity of the whole concept was just too much for me. "IT?" I asked feebly.

"Sure," Bruce replied. "As in 'This is it!' The designers thought it would be a nice touch; they explain that in the introduction. The rules came yesterday," he continued, indicating the library with an expansive wave of his hand, "and I stayed up until 2 AM getting the room cleaned out and the boxes unpacked. When I got up this morning I went right to work on the errata sheets in those two boxes, but the vans came and I had to leave that. Did you notice how the rules are in ring-binders so that the errata can be inserted right in the rules? They've thought of everything."

"Everything?" I moaned, saying the first thing that came into my mind. "What about the errata?"

"Well, you have to expect some oversights in a game of this scope."

"Two cardboard boxes of oversights?" Suddenly another wave of fear struck. I was almost afraid to ask. "What's in the boxes in the garage?"

"The counters, of course. Three trucks full of counters—well, the third isn't quite full. Look here," he said, bending over another carton, "I saved this one out of the pile. It has the first 25,000 leaders of the Third Reich. See, here's Hitler, and Goering, and Goebbels, and Speer, all the big ones, and each with a combat factor, movement factor, efficiency rating, political reliability rating, and economic reliability rating. Goering's economic reliability rating is almost the lowest in the game," he chuckled.

"Are all of them in silhouette?"

"Oh yes, down to the last 75-year-old in the Volkssturm. The same with all the civilian counters, weapons counters, vehicle counters, ship counters and plane counters. The first two volumes of the rules deal exclusively with counter identification. I've only glanced through the rules so far."

I couldn't stand it any longer; I had to get out of the room. I went into the living room and gazed out at the vans. Mary was at the other window already, going through a repetitious series of automaton-like motions. First she would stare at the vans, then bend down, roll her two dice across a low coffee table, announce the result, then straighten up again to stare at the vans.

Bruce had followed me into the room. "All for a very reasonable price, too. Only eight ninety-nine."

"That's even more impossible than the existence of this monster! You can't produce something like this for \$8.99!"

"No, no, I meant eight hundred and ninety-nine dollars. Shipping charges bring it up to almost a thousand." He joined me at the window and stared outside with the most disgusting look of pride and acquisition combined that I have ever seen.

"The tents?" I asked.

"Those are just temporary, to store the other two truckloads of counters and the board sections. It would be kind of awkward keeping them in the house."

The board! I hadn't even thought about that. The rules I could handle; after all, it was only about the same size as the reference section of our local library. The counters were harder but I could deal with them too. No more actual space perhaps than the entire yearly supply of office forms used by the New York City government. But the board! God no, that I just could not conceive of.

Bruce prattled on. "The board is coming tomorrow, by truck. It's printed in 4' x 8' sections on heavy stock in 194 distinct shades of color. They say it's the most accurate game board ever printed."

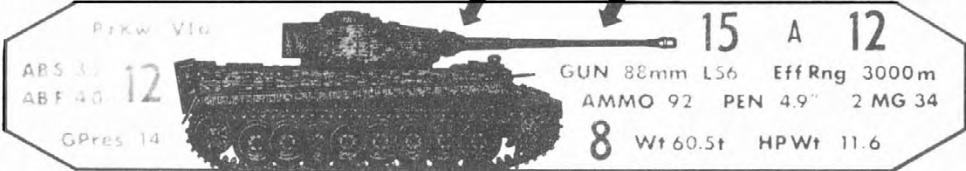
I was starting to get a little hysterical. Somehow I had to make Bruce see the craziness of this entire operation. His whole life hung in the balance; I mean, if it took uncountable numbers of people six years to conduct the war the first time, how long would it take one person to recreate it, even on such a reduced scale?

"If you don't even have room to store all the counters, where are you going to set the board up?" I screamed at him.

"That's all set already. I just bought 31 acres of that old farm two streets down; 30 acres for the board and 1 for the administration building. My architect is working on that now. He still hasn't come up with a definite design plan, since we can only estimate the amount of filing space it will take to sort out all those counters and keep them separated. Plus we'll have to have a room for the rules and another room for record keeping. Then once we get that finalized he has to start work on the building to cover the game board; I've bought enough clear fiberglass to provide both a backing and a cover for the board, but the counters will still be exposed. He's going to get a schematic of the board together so that he can put the supporting pillars in the least used spots and at the same time use them to hold up the catwalk system we'll need so that I won't accidentally disturb any of the counters. We should have the land cleared off by spring and hopefully the buildings completed by fall. That should give me enough time to read the rules over once quickly and make a start on punching out the counters. I have my father and two uncles in there somewhere and I'm looking forward to finding them."

Continued on Page 23, Column 3

DESIGN ANALYSIS



STARSHIP TROOPERS: GAME AS LITERATURE

By Randall C. Reed

STARSHIP TROOPERS, owes much of its flavor to the circumstances surrounding its development. A game can be enhanced or ruined during its long design process and this is especially true of *SST*. The design approach was *literary*, which is understandable given its origin in a science fiction novel. But the game is literary for more reasons than its ancestry. As a design concept, the game had to be entertaining, it had to tell a story, it had to attempt to take the player along an allegorical path from one scenario to the next to arrive at a climax and denouement. It was structured in a literary fashion. It had strong characterizations of good and evil, weak and strong, confrontation and conflict. Its purpose was not so much to simulate as it was to narrate.

Lacking an historical data base, the emphasis of the design centered on the game system and player interaction. Much of the enjoyment was to be derived by the players interacting with one another as they assumed the mentalities and characteristics of futuristic earthlings or totally alien extraterrestrials. In that case, the lack of historicity became an advantage as players and designer alike were not forced to *simulate* for simulation's sake but could, indeed, enjoy the game for its own sake. The designer, ignoring the question of what 'had happened', could concentrate on the problem of what 'was happening' in the creation of a clean, efficient, and entertaining game system. The remarkable faithfulness of the game to the novel is more a credit to Mr. Heinlein's logically conceived ideas rather than any great concern or effort on the part of the designer.

The fact that the project was 'novel-into-game' instead of 'history-into-game', required a re-application and a conscious 'un-doing' of the usual analytical game design techniques. It had to flow, to entertain, yet it had to have some resemblance of from whence it came. Since the novel had been written in the 'first-person-past-tense', it was an *historical* novel. It was, in the narrator's intent, an incomplete first-person recollection of the First Interstellar War. Because it was incomplete, the designer had no 'secondary sources' with which to confer. The entire relevant universe of the game was contained in the 200-odd pages of the novel. In order to design a game, the holes in the story recounting the War had to be filled by extrapolating tidbits of information to gather enough data for a multi-scenario game. Again, due to Mr. Heinlein's literary talents, the tidbits, clues, and indicators were there to be found.

Very few of the elements added to the game were 'cold' in the sense of having no logical basis in the novel. Justifications were demanded by *SST* playtesters throughout the developmental period. For example, since 'command communication' and 'chain of command' played such an integral part in the book, playtesters wanted to know why it had been ignored. It hadn't. Heinlein made special efforts to show that the M.I. was put together in such a way that it would be a real fluke or a very large disaster for the chain of command to be

shattered to the point where no one could give orders. In most cases, an NCO or lance corporal would step up and fill the slot. If any section or platoon leader survived, the platoon would still function normally. In regards to 'command communication', the M.I. enjoyed all of the advancements of a technological society. There were very few limits placed on intra-platoon communications. In both of these situations, the absence of any inhibiting rules better represents the situation that occurred. Limiting rules are unnecessary since the game player's point of view (and his 'role' in the game) is that of platoon leader. He will always be in control of whatever functional units he has left. It wouldn't make very much sense if he was out of the game whenever the platoon leader unit was eliminated; the Alien player would never attack anything else.

Painful as it was, certain elements were excluded from the game due solely to their lack of impact on the game system. 'Neodogs', hybrid canines used for scouting, were ignored because they were essentially a failure and operated only on the periphery of a conflict, beyond the scope of the game. The various personal armaments of Mobile Infantry and Aliens alike were lumped into a 'Close Combat attack strength' because of the relatively large scale of the game. Specially patterned Mobile Infantry ground maneuvers, often described in the book, were ignored because players would optimize their own methods of ground tactics that would fulfill the same purposes. Yet, within the scope of the design, very little was left out.

On the other side of the coin, certain new elements, outside of the book, had to be added to make the game system work. These additions were minimized as much as possible, but they were not totally unavoidable. 'Designer's license' resulted in the Heavy Weapon units for both the Arachnids and the Humanoids; they needed *something* with which to oppose the Mobile Infantry! The Arachnid tunnel system became highly stylized and simplified to prevent the game mechanics from becoming a digression into solving maze puzzles. Arachnid Engineers were introduced as a bookkeeping device to monitor a host of tunnel capabilities and functions. Considering their impact on the basic game system, the above mentioned additions had little effect on the scope of the game.

An historical event has its own sources of information and analysis. With *STARSHIP TROOPERS*, however, there existed the possibility that a game player who had not been exposed to the novel could have difficulty in anchoring the game into some sort of reality. From a marketing standpoint, there was a danger that the game would be without foundation, 'off-the-wall'; an in-joke lost on the uninitiated. Avalon Hill could have included a paperback copy of the novel with every game, but there were a host of economic and business problems that mitigated against it. Besides, if the game could not stand by itself, then there was something wrong with the game. The solution was

to treat the novel as 'history' and include as much background/introductory information as possible within the pages of the rules manual. To this end, illustrations, excerpts, summaries, and thumbnail sketches were interspersed throughout the rule book to give the game player an approximate idea of the 'events' being modeled. As an extra measure, the remarkable three-page montage presented at the end of the rules became an important tool in creating an aura of reality and familiarity.

Robert Heinlein's military/political universe was not without its faults, however. We are still not sure whether a Mobile Infantry platoon's TO&E should roster fifty men or fifty-two. (His arithmetic says 50, contextual clues say 52.) That is a minor glitch and does not in any way detract from the system. There is another rather odd problem that requires more consideration. Within the framework of the novel, there is no strong reason, in many instances, for one side to conflict with the other when the M.I. invaded an Arachnid-occupied planet. If the M.I. occupied the planetary surface, that act did not directly threaten the Arachnids. Why, then, would they waste themselves in 'banzai' attacks that only depleted their strength? If the strength was depleted, the Terrans could then attempt to interdict the tunnel systems. If the Terrans did nothing, the Arachnids could do very little if the M.I. simply avoided them. Obviously, this created some problems.

The solution to the interaction problem was approached from two directions. The least preferred method was to alter a scenario's victory conditions. In scenario two, for example, the victory conditions artificially promote conflict by requiring the Terrans to maintain an eleven hex perimeter for no other reason than the player is instructed to do so. The Arachnid player accrues victory points by penetrating this perimeter. Voila! Instant conflict. But is not derived from the game system rules; it is artificial. The second and by far the better solution involves giving each side weapons or tools in the form of rules capabilities which they can direct towards their own end in a variety of different ways. Coupled with a set of victory conditions that generally award points for destruction of enemy units or occupation of key installations, players formulate rational strategies based on the strengths and weaknesses of their own weapons systems. One side or the other can cause the enemy previous injury in its home environment by the proper applications of these weapons. Passive defense is impossible; the defender must fight or die. Comparing scenario 2 with scenario 5A, it is clear that by adding Combat Engineers, Demolition Munitions, Listening Devices, and Heavy Nerve Gas, the Terran player possesses the tools to effectively interdict the Arachnid's subterranean environment. If left unchecked, the M.I. player maps out the Bug tunnel layout, uses his Combat Engineers to blow HE and Nerve Gas into Brain cells, and ultimately destroys the entire Arachnid complex. The Bugs *must* fight, or die in their holes. No special rules are needed to initiate the conflict, it is inherent in the general rules of the game. This is not a problem in the book where the author prescribes his own plot and action, but only surfaces when the game designer is depending on two opposing players for the 'plot' of his game.

In reading *STARSHIP TROOPERS*, one is struck by the notion that the Bugs would have been better off hiding in their holes. After all, the main Terran strategy was to cause the Bugs to come to the surface and fry them with superior weaponry. The interdiction of the Bug tunnels was only moderately effective. Mapping out the tunnel system was more of a *defensive* measure than an offensive tactic. Why, then, would Heinlein require that the Bugs come up and slug it out? Because of the *strategic* situation. Richard Hamblen, production assistant

for *SST*, explains that the Arachnids, like the Terrans, are space-faring entities. The presence of the Mobile Infantry on the surface of a planet would represent *strategic interdiction* between a subterranean Arachnid colony and deep space that threatened isolation. Besieged in their complexes, the Bugs would be faced with breaking the siege or being starved into ineffectiveness. The more that idea is examined the better it looks and the more Heinlein's genius is appreciated.

Why a game on *STARSHIP TROOPERS*? Personal biases, really. I still get chills when I read the last couple of pages of the book. And that's after about 30 readings. Mr Heinlein projected a military/political situation of surprising depth and logic. It was due to his brilliance that *SST*, the game, worked so well.



A. H. Philosophy . . . Continued from Page 2

singles and doubles) his affable disposition and great innate sales ability will keep him in good stead.



AH has also made great progress in foreign markets in the past year. We now export the games to Germany, Belgium, Japan, Greece, Italy, Sweden and virtually all English speaking countries. Furthermore, we recently sold the German rights to *DIPLOMACY* to the German division of Parker Brothers. When added to existing licensed manufacturing of the game in England and Canada (and a pirated version in Brazil), one can easily make a case for *DIPLOMACY* as the first international wargame. We also recently sold the right to reproduce excerpts from the directions of *EXECUTIVE DECISION* to IBM for use in their internal education and business seminars.

The *GENERAL* is not without a role in the overall expansion of the company. We are currently trying to get retail outlets to handle the magazine on a guaranteed sale basis. Preliminary efforts in this regard have proven quite successful with the magazines not only selling well—but increasing interest in the games and thus game sales, as well. You can help us in this regard by taking your magazine into your local retail outlet and suggesting they stock the magazine. In the long run it helps everyone—our circulation increases enabling us to expand the magazine at no additional cost, and the hobby gets additional exposure—which means more

THE GENERAL

opponents, convention possibilities, and local club action for you. The growing acceptance of wargames is beginning to make itself felt in new ways. Detroit area gamers have gotten their act together to the point where they are financing our trip to their annual convention MICHICON VI. Details are available in the *Infiltrator's Report* but the thing to note here is that the hobby seems to be coming of age to the point where groups can come together and finance trips and gatherings of this sort. We're still in the embryonic stages but this is the sort of thing that Sci Fi and other interest groups have done on a high level of professionalism for years. Improvements such as retail distribution of the *GENERAL* and high class salesmen of Brooks Robinson's caliber help speed the movement in their own way and enable Avalon Hill as a company and the hobby to "come of age" together.

Speaking of improvements to the *GENERAL*, response to the tear out counters of Vol. 13, #5 has been overwhelming. Regardless, this magazine will *not* add to the game glut by changing its policy on not printing games in the magazine. We *will* do worthwhile variations of existing games from time to time, and include the tear out counters as a matter of convenience. One such project in the works now is a Pacific version of *WAR AT SEA* by Richard Hamblen which is scheduled for the July edition. We were tempted to produce this independently as a game in its own right but felt that despite the added sophistication being built into it, it was too much of a trade off of *WAR AT SEA* to offer as a new game system. Although that issue will come with a foldout map and tear out counters it should not be mistaken as a trend towards a game of the month publication philosophy.

Elsewhere in this issue we advertise two new games (*ARAB-ISRAELI WARS* and *THE COLLECTOR*) plus the revised rules to *The RUSSIAN CAMPAIGN*. As usual, we are highly pleased with all three and trust they'll be favorably received. Next time we'll give you the rundown on the *SIX* new titles to be released at ORIGINS III. And you thought we were loafing!

Lastly, mail order customers will be happy to hear that we now accept major credit cards. Just list your MASTERCHARGE, BANKAMERICARD, or AMERICAN EXPRESS number and expiration date with your order. There will be no additional delay in processing your order and you can expect the same quick service you've come to expect from Avalon Hill.



FACTORY OUTLET

Whenever in the Baltimore area feel free to drop in at our design offices at 900 St. Paul Street. As a convenience to those who visit our Town House design offices, a wide selection of the latest games are available for sale to the public at full retail (sorry, no discounts given here . . . the half-price table discontinued as of April 30.) Games, only will be for sale. No parts or issues of The General: they must be ordered by mail. Please bring your checkbook or be prepared to make exact change. Saturday visitors are invited to stay to playtest new titles or simply play their favorite games in the IGB gameroom.

Hours: Mon-Fri: 9 A.M. to 5 P.M.
Sat: 10 A.M. to 5 P.M.

TIRPITZ & THE DIE-ROLLER

Or, At Sea With the Binomial Distribution

By Craig Ransom

The Axis player has just received his seventh U-boat, and the Allied player is concerned about the fate of a convoy currently occupying the North Atlantic and scheduled to enter the Barents this turn. How many ASW factors should the Allied player allocate to the Barents in order to be fairly sure of eliminating the U-boat menace? How many U-boats does it take to constitute a menace? How sure is "fairly sure"?

The *Tirpitz* enters the North Atlantic in the face of a force of Allied BB's and BC's. In the past, the *Tirpitz* has always been disabled and returned to port instead of being sunk. The German gunnery has eliminated several Allied ships. Does the Allied player have enough combat factors to eliminate the *Tirpitz* once and for all? Will it only be disabled as before? How certain are the players as to the outcome of this engagement?

These questions and others of a similar nature occur repeatedly in *WAR AT SEA*. As there is no simple Combat Results Table for this game, there is no simple method of predicting the possible outcomes of any round of combat. However, the very simplicity of the system allows an analysis based on basic probability theory.

THE COMBAT SYSTEM

To recapitulate the basics of the system, each vessel is entitled to roll dice equal in number to its gunnery factor. Each "5" rolled disables an enemy vessel, forcing its removal at the end of the current combat round, and each "6" is rerolled and the total applied as damage against the defender's defense factor. Undamaged German surface craft receive a +1 bonus on their combat rolls, but not on their

damage rolls. ASW works a little differently: dice equal to the number of ASW factors are rolled; each "6" destroys one U-boat, and each "5" returns one U-boat to port (kills take precedence over returns).

BASIC PROBABILITY: THE BINOMIAL DISTRIBUTION

Referring to a basic probability text, we find a ready method of handling the above combat system in the form of the Binomial Distribution and associated formulas. The theory states that, given something which takes on two states (called "success" and "failure") and we know how often "success" occurs relative to all tests of the something, which we call "p", then, if we do an experiment of N trials by sampling our something N times, we can calculate the probability of having exactly x successes! Now, if we know the probability of "x" successes, we can also find the probability of having "at least x" successes by summing the probabilities of having x, x+1, x+2, etc. successes up to x equal N. The only important qualification to all this is that each sample be independent of the rest of the samples in our experiment of N trials.

THE BINOMIAL DEPTH-CHARGE

If we examine the ASW combat we find a ready made situation for applying the Binomial Distribution. The probability of "removing" a U-boat from a sea zone (a "success" from the Allied standpoint) is 1/3 (rolls of "5" and "6": two possibilities out of 6).

Now, since I can roll any number of dice without any die roll affecting any other, thus satisfying the independence condition, if I roll "N" dice for "N" ASW factors, I can determine the probability of destroying "x" U-boats for all "x" from none thru N. From these, by summation, I can in turn determine the probability of removing "at least x" U-boats. This is what was done in table I. It shows the probability (represented as a percentage) of removing one to seven U-boats for ASW strengths of one to thirty. As one might expect, the more ASW you pile into a sea zone, the unhealthier it becomes for U-boats!

OTHER ATTACKS: DAMAGE ROLLS AND COMPLICATIONS

The hook comes when damage must be incorporated. No simple table here; each "6" is rerolled and the total score becomes the damage inflicted on the target. The probability formulas must be rewritten to incorporate sums of die rolls and the probabilities of scoring so many points when rolling a given number of damage dice. Again, I am sure that most wargamers are more interested in scoring "at least" a certain amount of damage; overkills are permitted. Tables II and III should crossreference dice rolled in initial combat ("Shots") vs. damage finally received by the target after the second roll of all "6's" (or "5's" and "6's" for undamaged Germans). For each number of shots, in the SHOTS column, the probability of disablement

TABLE I
U-BOATS

ASW	1	2	3	4	5	6	7
1	33	0	0	0	0	0	0
2	55	11	0	0	0	0	0
3	70	25	3	0	0	0	0
4	80	40	11	1	0	0	0
5	86	53	20	4	0	0	0
6	91	64	31	10	1	0	0
7	94	73	42	17	4	0	0
8	96	80	53	25	8	1	0
9	97	85	62	34	14	4	0
10	98	89	70	44	21	7	1
11	98	92	76	52	28	12	3
12	99	94	81	60	36	17	6
13	99	96	86	67	44	24	10
14	99	97	89	73	52	31	14
15	99	98	92	79	59	38	20
16	99	98	94	83	66	45	26
17	99	99	95	86	71	52	32
18	99	99	96	89	76	58	39
19	99	99	97	92	81	64	45
20	99	99	98	93	84	70	52
21	99	99	98	95	87	75	58
22	99	99	99	96	90	79	63
23	99	99	99	97	92	83	68
24	99	99	99	98	94	86	73
25	99	99	99	98	95	88	77
26	99	99	99	98	96	90	81
27	99	99	99	99	97	92	84
28	99	99	99	99	97	94	87
29	99	99	99	99	98	95	89
30	99	99	99	99	98	96	91

TABLE 2
NORMAL FIRE (ALLIES, U-BOATS, AIRSTRIKES, DAMAGED GERMANS, ITALIANS)
DAMAGE POINTS

SHOTS	DISABLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	16	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	30	4	4	4	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	42	5	5	6	6	6	6	1	1	0	0	0	0	0	0	0	0	0	0	0	
4	51	6	6	7	7	7	8	2	1	1	0	0	0	0	0	0	0	0	0	0	
5	59	6	7	7	8	8	9	2	2	2	1	1	0	0	0	0	0	0	0	0	
6	66	6	7	7	8	9	9	3	3	2	2	1	1	0	0	0	0	0	0	0	
7	72	6	7	7	8	9	10	4	4	3	2	1	0	0	0	0	0	0	0	0	
8	76	6	6	7	8	9	10	5	4	4	3	2	2	1	1	0	0	0	0	0	
9	80	5	6	7	8	9	10	5	5	4	4	3	2	1	1	1	0	0	0	0	
10	83	5	6	7	8	9	10	6	5	5	4	4	3	2	1	1	1	0	0	0	
11	86	4	5	6	7	8	9	6	6	5	4	3	2	2	1	1	0	0	0	0	
12	88	4	5	6	7	8	9	6	6	5	5	4	4	3	2	2	1	1	0	0	
13	90	4	4	5	6	7	9	6	6	5	5	4	4	3	2	2	2	1	0	0	
14	92	3	4	5	6	7	8	6	6	5	5	4	3	3	2	2	1	1	1	0	
15	93	3	4	4	5	6	8	6	6	6	5	5	4	3	3	2	2	1	1	1	
16	94	2	3	4	5	6	7	6	6	6	5	5	4	4	3	3	2	2	1	1	
17	95	2	3	4	4	6	7	6	6	6	5	4	4	3	3	2	2	1	1	1	
18	96	2	2	3	4	5	6	5	6	6	5	4	4	3	3	2	2	1	1	1	
19	96	1	2	3	4	5	6	5	6	6	5	4	4	3	3	2	2	2	1	1	
20	97	1	2	2	3	4	5	5	5	6	5	5	4	4	3	3	2	2	2	1	

TABLE 3
GERMAN SURFACE BONUS FIRE
DAMAGE POINTS

SHOTS	DISABLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	16	5	5	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		33	27	22	16	11	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	30	7	7	8	8	8	8	1	1	1	0	0	0	0	0	0	0	0	0	0	0
		55	48	40	32	24	15	6	4	3	1	0	0	0	0	0	0	0	0	0	0
3	42	7	8	8	9	9	10	3	3	2	2	1	1	0	0	0	0	0	0	0	0
		70	62	54	46	36	26	16	12	8	6	3	2	0	0	0	0	0	0	0	0
4	51	6	7	8	9	10	11	5	5	4	3	2	2	1	0	0	0	0	0	0	0
		80	73	66	57	48	38	27	21	16	12	8	5	3	2	1	0	0	0	0	0
5	59	5	6	7	8	9	10	6	6	5	5	4	3	2	1	1	0	0	0	0	0
		86	81	74	67	59	49	38	31	25	19	14	10	7	5	3	2	1	0	0	0
6	66	4	5	6	7	8	10	7	6	6	5	4	3	2	2	1	1	0	0	0	0
		91	86	81	75	67	59	49	41	34	28	22	17	12	9	7	5	3	2	1	1
7	72	3	4	5	6	7	8	7	7	6	6	5	4	3	2	2	1	1	0	0	0
		94	90	86	81	74	67	58	51	44	37	30	24	19	15	11	8	6	4	3	2
8	76	2	3	4	5	6	7	6	6	6	5	4	3	2	1	1	1	1	1	1	1
		96	93	90	85	80	74	66	59	52	45	38	32	26	21	17	13	10	7	5	4
9	80	1	2	3	4	5	6	6	6	6	6	5	5	4	3	3	2	2	1	1	1
		97	95	92	89	85	79	73	67	60	53	46	40	34	28	23	19	15	11	9	7
10	83	1	1	2	3	4	5	5	5	6	6	6	5	5	5	4	3	3	2	2	1
		98	96	94	92	88	84	78	73	67	61	54	48	41	35	30	25	20	16	13	10
11	86	1	1	2	2	3	4	4	5	5	6	6	5	5	5	4	4	3	3	2	1
		98	97	96	94	91	87	83	78	73	67	61	55	49	43	37	32	27	22	18	15
12	88	0	1	1	2	2	3	3	4	5	5	5	5	5	5	5	4	4	3	3	3
		99	98	97	95	93	90	87	83	78	73	67	62	56	50	44	38	33	28	24	20
13	90	0	0	1	1	2	2	3	3	4	4	5	5	5	5	5	5	4	4	4	4
		99	98	98	96	95	92	89	86	82	78	73	68	62	56	51	45	40	34	30	25
14	92	0	0	0	1	1	2	2	3	3	4	4	5	5	5	5	5	5	5	4	4
		99	99	98	97	96	94	92	89	86	82	78	73	68	63	57	52	46	41	36	31
15	93	0	0	0	0	1	1	2	2	3	3	4	4	4	5	5	5	5	4	4	4
		99	99	99	98	97	95	94	91	89	85	82	78	73	68	63	58	52	47	42	37
16	94	0	0	0	0	1	1	1	2	2	3	3	4	4	4	4	5	5	5	5	4
		99	99	99	98	97	95	93	91	88	85	81	77	73	68	63	58	53	48	43	43
17	95	0	0	0	0	0	1	1	1	2	2	3	3	3	4	4	4	4	4	4	4
		99	99	99	99	98	97	96	95	93	91	88	85	81	77	73	69	64	59	54	49
18	96	0	0	0	0	0	0	1	1	1	2	2	2	3	3	4	4	4	4	4	4
		99	99	99	99	98	97	96	94	92	90	88	85	81	77	73	69	64	59	55	55
19	96	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	4	4	4	4	4
		99	99	99	99	99	98	97	95	94	92	90	87	84	81	77	73	69	65	60	60
20	97	0	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	4	4	4	4
		99	99	99	99	99	99	98	97	96	95	94	92	90	87	84	81	77	73	69	65

(DIS column) is given. On the same line, under DAMAGE, the first line is the probability of rolling exactly that number of damage points, given the initial number of shots. The line beneath is the probability of inflicting "at least" the amount of damage.

USING THE TABLES

Now that we have them, we must use the tables for them to have any practical advantage. One thing we might do is to compare the relative effects of German bonus fire vs. normal fire. For 4 factors firing, the Allied player can "expect" to cause 1 point of damage on a target. In statistics, the "expected" value is the value associated with the 50% level. The German can expect closer to 4-5 damage points for each four factors that he fires! That +1 bonus can really kill you as the Allied player unless you play to damage as many of his ships as you can as quickly as you can in battle. This means that firing single cruisers on enemy ships is no good—the probability of hurting him is too poor. Four factors is about the minimum the Allied ships should ever fire on a target. Inspecting the German Bonus table (III) we see that the minimum he should fire (and expect to do damage) is two factors. Cruisers are good for upfactoring smaller ships, and in groups of four, are quite useful.

I am sure that, with a little thought, other uses of the above tables will come to mind, particularly in conjunction with Richard Hamblen's excellent "FUZZY-WUZZY" article printed in Vol. 13, No. 3 of the *GENERAL*.

AREA TOP TEN		
Rank	Name	Times On List
1.	R. Chiang	5
2.	T. Oleson	6
3.	R. Wood	3
4.	C. Todoroff	4
5.	S. Heinowski	4
6.	G. Kilbride	3
7.	E. Alexis	1
8.	D. Barker	4
9.	S. Packwood	4
10.	D. Agosta	1

The above players represent the 10 highest verified (11+ rated games) of the 3,000 member AREA pool. Players with an opponent qualifier less than C were not calculated among the top player ratings.

The "Times on List" statistic is considered as "Consecutive" times on list. If a player slips out of the Top 10 for any length of time his next appearance is considered as his first.

The following AREA memberships have been terminated. No rating points can be awarded for games with these individuals as they are no longer members of the system.

06109-01 60641-01 91789-01
14037-01 70601-04 93555-01
45208-01 73139-01 CANAD-02
OVERS-07

TOBRUK X3 *Continued from Page 29*

expended ammo previously for various mischievous purposes. Thus, nobody enters the game with a full load.

Prior to starting the game, have each player roll a single die—in secret—for each weapon he has on the board. Multiply the die roll by 10, and this is how much ammo that particular weapon has. Thus, every weapon will have somewhere from a minimum of 10 rounds to a maximum of 60 rounds.

When playing "Duel of the Best", a separate die roll should be made for German APCR ammo. However, this die roll is NOT multiplied—it simply denotes rounds of Acquired APCR fire available for each Pz IIIj. Since a IIIj's ROF is 4, a die roll of '1' yields 4 rounds; die roll '2' yields 8 rounds; die roll '3' yields 12 rounds, etc.

Obviously, this can result in scenarios which are highly unbalanced, and it can result in scenarios that are hardly changed at all (Anything from 40 to 60 rounds is as good as a full load in a firefight.) But the point is that these die rolls are made in *secret*. No matter how low your own ammo, you can't be sure that your opponent hasn't been skunked too. If you charge boldly across the board—he just *might* make a hasty exit! So, although some games will hardly be affected at all, the routine play of this rule will, upon occasion, produce some mighty queer—and interesting—desert engagements.



PANZERBLITZ *Continued from Page 30*

As the weather got colder, the vegetation changed. Lower ground cover first disappeared, and next the forest thinned out. Coupled with the freezing of the ground to as deep as three feet, cover became more difficult to find. Some German units were reduced to using anti-tank mines to blast foxholes.

At the same time, the effectiveness of H & M class artillery improved. Most of their killing power comes from blast and shrapnel. The increased hardness of the ground and the reduced low vegetation both helped improve the shrapnel characteristics. Just the opposite occurred during the muddy season.

On the Eastern Front, these classes of artillery used either timed air bursts or impact bursts. It was up to the Americans to develop the proximity fuse.

Close assaults are adversely affected by both extremes in the weather. Rain/mud and snow/ice slow the forward movement of troops making assaults, and prolong their time in exposure to defensive weapons. What few winter assaults took place were generally proceeded by heavy artillery . . . even so, the failure rate of winter assaults was much higher than those in other temperatures.

In general, the three weather conditions called for somewhat different tactics by small unit commanders. As a rule, the worse the weather, the more important the part of the infantry. However, PANZERBLITZ does not account for the failure of equipment, and any attempt to include it in the game format results in a cumbersome rules situation. Thus the situations do not feel the weather, and the relative importance of the three combat arms doesn't change. How the changes put forth by these rules affect the play is a function of the way the individual player develops his old warm/dry tactics.

Game Balance

All the modifications have been playtested. This testing has shown that several situations border on the unbalanced when rain/mud or snow/ice options are used. Nos. 2,3,5,6, and 8 feel the effects of weather more than the others.



TOBRUK X3

DOUBLE TOBRUK:

The most crucial decision in designing any simulation boardgame is selection of appropriate time and distance scales. Almost any scale you choose will be perfect for simulating *some* aspect of the conflict under study, while at the same time rendering other aspects impossible or at best impractical to simulate very well. Selection of time distance scales, then, serves to focus a game on whatever elements the designer wishes to emphasize—but can also reduce other important elements to mere abstractions. Sometimes this trade-off can be a pretty hard choice to make.

The *TOBRUK* distance scale is a good example. A gameboard hex scaled at 75 meters across represents a *lot* of territory—especially for a game in which individual tanks and infantry squads are fighting in 30 second time increments. Now, it's easy to see why this scale was selected. The designer obviously wanted a game compact enough to play on a card table, but also wanted to restrict the firing ranges of the tanks to something less than the length of the board. And the tight time scale was needed to differentiate the various rates of fire of different weapons. For these purposes, the game scales are ideal.

However, you pay an immediate price in terms of movement (and also in terms of ability to simulate terrain, which I'll discuss briefly later). Considering the immense distance across a hex, a tank isn't going to get very far in 30 seconds: anywhere from 2 to 5 (maximum) hexes. Infantry fares even worse, covering one or two hexes at most. Now, this presents no real difficulty and is certainly not a game problem. But *PANZER LEADER* players accustomed to hot-rodding across the gameboard in one move often find the slow crawl of tanks across a *TOBRUK* board just not emotionally satisfying.

Fortunately, there is an easy and simple solution—providing you are willing to sacrifice the compact gameboard. All you need do is double the area of the playing board and halve the scale of a hex (to 37½ meters). Obviously, it would take four complete sets of *TOBRUK* boards to double the area of your playing surface. A much cheaper solution is to order four 22" x 28" blank hex sheets from Avalon Hill for \$3.00. Lay these sheets out on a ping pong table or other large surface and you're ready to play "hot-dog" *TOBRUK*. Briefly, here is how the scale adjusts:

(1) Double the firing range and movement factor of all units in the game. When firing a weapon, count the range to target in hexes as usual. Then halve this distance (round fractions up) and consult the Hit Probability Table to determine your Hit Probability Number as usual.

(2) You must also double the number of mines, anti-tank trenches, and hedgehogs called for in a scenario. This is because these units now cover an equivalent of two hexes instead of just one.

DO NOT double the number of bunkers or weapons pits in a given scenario. These remain exactly the same; so do the number of tanks and infantry. Remember, we have doubled the range in hexes of weapons in these locations, so they still cover the same amount of territory.

(3) However, since a hex is much smaller, we have reduced the amount of territory in which infantry can melee. Personally, I would leave this as it now stands. The original playtest rules of *TOBRUK* had infantry melees optional, even when opposing units were in the same hex, because of the size of a hex. Thus, our new reduced hex size is simply more realistic in terms of mandatory melees.

If this doesn't satisfy you, simply give infantry a melee Zone of Control. A melee is optional when units are adjacent (either player may declare a melee, no matter whose movement phase it is); mandatory when in the same hex.

(4) Be sure to play the optional Undulating Terrain Cover rule (p. 20). Theoretically, you should now be able to seek such cover in any cluster of four hexes. But in practice you'll almost always have a "preferred" hex, so I suggest: (a) Before moving an AFV, you must announce that it is seeking hull defilade cover; (b) this halves its movement factor this turn to allow time for searching; (c) denote a hex within its halved movement range, and roll for cover in that hex.

(5) Finally, any number of minor decisions regarding adjustments to this scale will have to be made. In general, I suggest you make whatever adjustment preserves the original game system intact. For example, I would retain infantry stacking at six units per hex. (You may wish to experiment with halving this to three units per hex later, to see how it affects melees). Morale range should probably be doubled to four hexes in any case.

Smoke should have a Smoke "Zone of Control" so that it retains its effectiveness in blocking Line of Sight. I would not, however, give smoke from burning vehicles such a smoke ZOC. But that's my preference.

Notice that I have only doubled, not quadrupled, the number of hedgehogs, antitank trenches, and minefield counters in a scenario. This is because they are primarily linear defenses; giving them "depth" would be incompatible with the game system (and probably unrealistic).

It's as simple as that.

The main advantage of this system is that you'll get a much greater "feel" of the range and distances of the desert. Your tank images on the counters will be closer in proportion to a hex (though still too large), while the unlimited stacking rule still (barely, I would guess) can be played. And, best of all, the more mobile of your tanks can now swan about in the desert with ease—up to ten glorious hexes per turn! While it doesn't make any practical difference—tactics on the regular game board apply here—the psychological liberation is exhilarating.

Finally, this greater area and smaller hex scale allow some steps toward desert terrain—depressions, etc.—being introduced to a limited degree without having them lock in the game. You must still be careful about introducing terrain. But you will gain some notion of the small hex scale and large map area necessary to make practical a scenario laid in Europe rather than the desert.

If you want to test out this scale before ordering blank hex sheets from AH, simply try a *TOBRUK* firefight using four *TOBRUK* board sections instead of one (assuming you know somebody else who also has a copy of the game.) Who knows, you may be pleasantly surprised—and on your way to bigger and better battles.

TOBRUK-BY-MAIL

If you think a game like *TOBRUK* is impossible to PBM, you're in for a surprise. It's not only possible, but easy and fun—and using firefights can be accomplished with ten mailings *maximum*. Here's all you do:

(1) Assume all *movement* and *fire* are simultaneous. This means a tank assigned to fire at a target will do so even if it is simultaneously destroyed by enemy fire.

Three Variants for Tobruk:
by Mark Saha

Delete the Dueling rule.

I strongly suggest using optional rules Undulating Terrain Cover and Best Target Aspect (p. 20, rules 4 and 6).

(2) Since play is simultaneous, you and your opponent must agree on a weekly or bi-weekly mailing date upon which you exchange moves for one complete "Turn".

When writing up your move, observe the following sequence:

a) Carefully plot all movement, giving *hex* and final *facing* of every vehicle that moves. Specify if it seeks undulating terrain. It is not necessary to denote Best Aspect; it's your opponent's obligation to determine whether he is entitled to an aspect superior to your final facing.

b) Now assign targets to those weapons eligible to fire. Where a tank has two weapons, be sure and assign a target for each weapon. Also, carefully note the sequence in which the various weapons will fire (for purposes of resolving combat only). Obviously, each player must keep a Target Damage Roster for both sides.

That's a complete move.

But—how do you resolve all those dice rolls, you ask? That's the easiest part. Simply look up Tom Oleson's Hexagonal PBM CRT system described in *GENERAL* 11/4, p. 28. When mailing your move, you need only list one "most active" stock as Tom suggests. However, assume the stock listing is a circular drum. Continue drawing a line after every sixth stock following the "most active"—going from "Z" to "A"—until you get back where you started. This gives you quite a few die rolls—more than enough for a firefight. If playing a scenario, throw in the American stock exchange—go from "Z" of N.Y. to "A" of American—from "Z" of American to "A" of N.Y.

Obviously, this is where you need a strict sequence in resolving your opponent's move. I Suggest:

a) Resolve all attempts at Undulating Terrain cover.

b) Resolve all weapons fire in sequence.

c) When a weapon scores a hit, resolve that hit on the Target Damage table immediately.

d) When the Target Damage table yields, a "P" result (Possibility of K-Kill), resolve that possibility immediately.

If a player discovers an error was made in resolving his combat he may send a request to play that move over instead of mailing a new move. If he does not exercise this option at this time, the move stands and the game proceeds.

You may use any *one* newspaper in your own hometown.

LOW-AMMO FIREFIGHTS:

TOBRUK firefights are excellent little "quickie" games, as well as good proving grounds for experimental rules that would dirty up a more elaborate scenario.

However, the restricted space and short game time of the firefights removes any realistic ammo usage restrictions a player might otherwise feel. The Fire Initiation Doctrine doesn't do much at short range, and there's not enough time to expend a full ammo load even if a player wished to do so.

An interesting and fun way around this shortcoming is to assume both forces in a firefight have been wandering around the desert awhile and

PANZERBLITZ MIT DAS WETTER

By Dr. Joe Connolly

In 1812, after marching through Poland, Napoleon invaded Russia with an army of about 500,000. He defeated the Russians at the Battle of Borodino and took Moscow on September 14, 1812. Shortly thereafter, fires accidentally or purposefully set swept through the city. Lacking food or shelter for his army, Napoleon was forced to retreat across Russia during October and November of 1812. Severe cold weather, starvation, and Russian guerilla tactics reduced the French force from the original 500,000 to one of less than 50,000. Russian weather won its first acclaim.

June 22, 1941 marked the invasion of another army who was to learn first hand of the attributes of Russian weather. And the weather began to make itself felt immediately. Good roads were few and bad ones numerous. Rain quickly turned the soft surfaced roads from sand and loam into quicksand. Each heavy shower temporarily reduced the German mobility to stagnation and multiplied the effect of the resistance of the many pockets of Russian troops bypassed by the German Armor spearheads. While the Germans had superior mobility most of the time, they couldn't outfight the Russians. Each delay waiting for the roads to dry accumulated lost time toward the ultimate failure of the strategic goals.

As summer turned to fall, the prospects for the capture of Moscow still looked good. But following the great Battle for Vyasma, the weather got worse.

Most of the German Generals now wanted to break off the fight and form a suitable winter line. They remembered what had happened to Napoleon. In fact, many began to reread Caulaincourt's grim account of 1812 with apprehension.

Yet the push for Moscow was again renewed on November 15 when the weather momentarily cleared. By December, after fighting both the Russians and the weather, the advance ground to a halt.

General Zhukov picked this time to begin a counteroffensive on a grand scale. By weight of numbers he drove the exhausted Germans back, broke their flanks, and produced critical tactical situations all along the front. From General down, the Germany Army was filled with thoughts of Napoleon and his unsuccessful retreat from Moscow 129 years before.

Hilter forbade any retreat other than local tactical withdrawals. The wisdom of such an order has been debated ever since. Certainly his decision exposed the men to the force of the Russian winter, for they had neither the clothes nor equipment necessary for a winter in this climate.

OKW and OKH had planned for an eight to ten week campaign. But even while doing so, they set in motion the military logistics to provide clothing for the German Army in the winter of '41-'42. At the very least they expected to have an army of occupation.

However, the logistical train they had set in motion was designed to function in a German winter, it couldn't compete with what it faced. Nobody had planned for weather so cold that motor oil froze. . . . in fact supply depots in Germany considered the first complaints about motor oil as nothing but exaggerations from the front. It then came as a shock that German steel bayonets which had worked so well in combat in France couldn't cut soup in Russia.

As the winter got worse, even vehicles froze to death. Drivers who stopped for too long found themselves infantrymen. The common method of starting light tanks became the fire under the engine.

Weather began to play as important a part in casualties as did the Russian Army.

Weather and Wargaming

Strategic wargames have usually made allowances for the Russian weather by limiting mobility during some or all of the months October to March. *STALINGRAD*, for example, gives a die-controlled weather condition. As these types of games deal with warfare on the Corps or Army level, they do not account for topographic or vegetation changes except to consider that the rivers or lakes are frozen under certain circumstances.

Tactically the weather affects the terrain, the unit mobility, fighting capabilities, and the weapons effectiveness. Each of these is independent to some extent, but they cumulatively cause changes in the small unit tactics.

Wetterblitz

There are three primary weather conditions which affect the tactics in *PANZERBLITZ*: warm/dry weather, rain/mud, or snow/ice. Modification of the Terrain Effects Chart, the Weapons Effectiveness Chart, and movement factors of selected pieces allows us to approximate the effects of weather on unit tactics.

TEC Modification—

add to the *PANZERBLITZ* TEC

RAIN/MUD:

Woods: Cost 1 MF to enter. Costs trucks and armor 2 MF.

Roads: Treat as clear terrain.

Gullies: Wagon and I costs 1MF/hex. Others 2 MF/hex. Costs wagon and I—1 MF to leave, trucks 6 MF, others 3 MF.

Slopes: Wagon and I units 1 MF to enter, trucks 5 MF, others 3 MF.

SNOW/ICE:

Woods: All woods hexes without a meeting of three solid green lines at a corner are no longer woods, treat as clear terrain. Costs wagon and I units 1 MF to enter woods, all others 2 MF.

Swamps: Treat as clear terrain 1 MF/hex, trucks 2 MF.

Roads: Treat as clear terrain 1 MF/hex, trucks 2 MF.

Gullies: Now costs trucks 6 MF to leave.

Ponds: Treat as clear terrain. May be blown back to pond status by H or M weapons. Pond DF=4, D, DD, or X results return hex to pond status.

Slopes: Now costs trucks 5 MF to enter.

Movement Factor Modification

RAIN/MUD: Subtract 1 from MF of all German Armor on the Pz IV chassis or larger.

Subtract 2 from the MF of the German Sdkfz 251 halftrack C unit. Subtract 2 from MF of Armored Cars.

Subtract 1 from MF of Russian SU 152, JSUs, and JSs.

SNOW/ICE: Subtract 1 from MF of Sdkfz 251. Subtract 2 from MF of all Armored Cars.

Weapons Effectiveness Modifications

RAIN/MUD: 1. H & M class add 1 to die roll when fired at I or C units.

2. CAT—subtract only 1 from die roll when used against I units.

SNOW/ICE: 1. H & M class—subtract 1 from die roll when fired at I units.

2. CAT—subtract only 1 from die roll for CAT against anything.

Weather

The conditions under which all the historical situations were fought can be obtained from a normal city library. For example, situation #8, relief of the Korsun pocket, was hampered by the cold, rain, and snow.

Instead of presenting the actual weather for each of the twelve situations a probability chart for the three kinds of weather is shown below. In this manner, the players can let chance decide the conditions, as it does in actual life. These are rounded off to fit the six chance outcomes of a die. They are developed from the scanty weather records available for this part of eastern Europe.

Weather Effect Chart

situation	die roll					
	#	1	2	3	4	5
1	w/d	w/d	w/d	w/d	w/d	w/d
2	r/m	r/m	r/m	s/i	s/i	s/i
3	w/d	w/d	w/d	r/m	r/m	s/i
4	w/d	w/d	w/d	w/d	w/d	w/d
5	w/d	r/m	r/m	r/m	s/i	s/i
6	w/d	r/m	r/m	r/m	s/i	s/i
7	w/d	r/m	r/m	r/m	s/i	s/i
8	r/m	r/m	r/m	s/i	s/i	s/i
9	w/d	w/d	w/d	w/d	w/d	w/d
10	w/d	w/d	w/d	w/d	w/d	w/d
11	w/d	r/m	r/m	r/m	r/m	s/i
12	w/d	r/m	r/m	r/m	s/i	s/i

w/d = warm/dry

r/m = rain/mud

s/i = snow/ice

Discussion of Modifications

Russian soil in most of the situations cards was of a class that produces a mud somewhere between permabond and white glue in adhesiveness and with the viscosity of quicksand. Vehicles had their effective life shortened by the action of this material.

While the Russian designers foresaw the use of armor in this morass and designed for lower track loadings, they still suffered a loss of mobility, albeit nowhere near what the early German Pz II to IVs did. Both armies found that wheeled vehicles became almost useless in the cross country aspects during the rain/mud season.

The horse became important, for it could go where only tracked vehicles or men could venture. And you can eat a horse whereas a tire doesn't make very good soup.

With the extreme cold, poorly balanced, overloaded chassis, or underpowered vehicles found the mobility stripped from them by the need to have traction and move snow. The Sdkfz had less power than it needed and paid for this lack during cross-country movement in the winter.

Continued on Page 28, Column 3

TWO PLAYER DIPLOMACY

OR HOW I STABBED MYSELF

By Lewis Pulsipher

In its essence, *DIPLOMACY* is a multi-player game, because negotiation is the major part of play. Nonetheless, the absence of luck factors in the mechanics, combined with basic simplicity, make *DIPLOMACY* attractive as a two-player game—especially when one can't find several opponents at once. Unfortunately, the outcome of the rulebook two-player version depends entirely on the coin flip for Italy; if Italy or another Great Power is in Civil Disorder throughout the game, it is usually a 17-17 or 18-16 draw between good players, depending on which three countries a player operates and how well he outguesses his opponent. But there are several more complex systems that may be used with *DIPLOMACY* to create games of considerable subtlety, to the point that negotiations are reintroduced in an abstract way. Experienced players can also add simple variations on the standard mechanics to increase complexity, but here I will only describe the more conservative two-player systems. Formal rules are not presented below because each basic system is subject to several variables. Some of the following variants are my own, but most have been devised by others, often independently by several people. Most may be used for multi-player *DIPLOMACY*, for which many were originally designed.

The outstanding way to play two-player *DIPLOMACY* is to include some system whereby players may take temporary control of neutral countries. Each person plays one of the seven Great Powers, and uses political factors (PF's) gained from center ownership to attempt to control *non-player countries* (NPC). These non-players can be only the Great Powers, or the twelve minor countries may each be given a unit and become subject to control. One may even rule the Great Powers off limits, so that only the two players and minor countries are in the game, but this requires several additional rules to avoid stalemate. Control of a non-player country usually is determined at the beginning of *each* game-year, and the controlling player moves all of the NPC's units for spring, fall, and fall adjustments. In some games additional rules are added to prevent unrealistic occurrences, such as a non-player country moving its unit(s) out of its center(s) so that units of the controlling player's country can capture them.

Victory criterion in two-player games is usually 19 units on the board, since an 18-16 result is often a stalemate or a temporary imbalance in a basic 17-17 draw position, and does not really prove that one player is superior to the other. On the other hand, there are several stalemate lines that may be constructed with only 14 or 15 units, preventing a player who has gained the clear upper hand (19) from capturing any more centers. An alternative victory condition is that the player who first occupies an enemy home center with one of his home country units wins.

There are three basic control systems: mercenary (or bribery), popularity index, and modified *ORIGINS OF WWII*. In each system, each player gains political factors each adjustment period based on the number of centers his home country (not countries controlled by him) owns. Sometimes more credit is given for a home center than

for a neutral center. The amount of credit varies between two and five, but the actual number is not particularly important. Four is a good compromise. Usually each player is given about six times this basic number to begin the game, so that control of some countries can be established before the first moves.

Using the mercenary method, each player secretly "bids" for control of non-player countries. The player with the higher bid subtracts that number of PF's from his total and controls the country for the next year.

Losing bids are not paid, of course. A player's bid total may be more than the number of PF he has, but if he must pay more in winning bids than he has, a penalty is assessed. A severe example would be that the player loses all of the PF's he has accumulated, but his winning bids do not count, and the other player may choose to pay his own bid in such a country and control it, or not pay and leave it neutral. Unused PF's may be accumulated from year to year.

For example, France is playing Austria; the value per center per year is three PF's each begins with 18. France bids 10 for *Germany*, 4 for *Turkey*, and 2 each for *Rumania*, *Italy*, *England*, and *Russia*. Austria bids 5 for *Turkey*, 4 for *Germany*, and 3 each for *Italy*, *Portugal*, *Holland*, and *Bulgaria*. Successful bids are italicized. France pays 16 PF, and Austria pays 17. Though both bid more than 18, neither had to pay more because of higher bids by the opponent, so there are no penalties.

A second method is the popularity index. Instead of bidding, each player allocates his PF's to the various non-player countries. The total popularity index is accumulated throughout the game. At the beginning of each year, the player with the highest popularity index in an NPC controls it. PF's may be saved by the player rather than allocated, giving him greater flexibility in future years. Using this method, players tend to gain control of certain non-player countries early and reinforce that control, so that there is less fluidity in the control pattern. A player can continue to allocate PF to his popularity index in an NPC, giving him the opportunity to build up the center holdings of the NPC without much fear that he will lose control the next year.

For example, the following might be a partial list of popularity indices in non-player countries at the beginning of each year in a game between France and Austria. An asterisk indicates control; a + indicates PF added for that year.

	Aus	1901	Fra	Aus	1902	Fra	Aus	1903	Fra
England	+2	+5*	2+8*	+3	10+3	tie	8+5		
Germany	+6*	+1	6+1	+1*	7+0		9+1*		
Italy	+0	+1*	0+4	tie	1+3	4+3*	+4+2		
Bulgaria	+2*	+0	2+2*	+0	0+3	4+3*	3+0		
			Etc.						

The third method is a modified version of *ORIGINS OF WWII*. Political factors are accumulated each year in NPC, as in *OWWII*, though not in the opponent's home country, and if one player can eliminate all of the other player's PF's in an NPC and survive with at least a specified number of factors, he may take control permanently. The required control number should vary with the number of centers the NPC controls at

the time. If each player receives four PF per center his country owns at the end of each year, then the control level should be four per center owned by the non-player country. For example, if Turkey owns two centers, the necessary number of PF for control would be 8. After PF's are placed, combat may be initiated simultaneously using the *OWWII* table, though I recommend devising a different combat table which depends less on luck and total elimination. No one wants to turn *DIPLOMACY* into a dice game, nor should it be very easy to gain control of an NPC since that control lasts the remainder of the game. After PF combat, control is determined and standard play goes forward for the year.

Another two-player version is *ANARCHY*. The standard country borders and composition are completely ignored. Each player is assigned home centers all over the board, either at random or by simultaneous selection. All other centers are unoccupied, like the minor countries in standard *DIPLOMACY*, while players build units in their home centers before actual movement begins. For example, a player might begin with home centers in Edi, Mos, Gre, Tun, Swe, and Mar. Six centers is a good number for a two-player game, and a few additional rules should be added if a random distribution is used in order to avoid unfair set-ups—for example, no center may be within two moves of another (counting land and sea spaces equally), as above, and each player is entitled to at least three coastal home centers in order to be able to build fleets. *ANARCHY* was originally devised for more than two players (with suitable guidelines it can be used with up to 34), and is much more interesting than the versions given in the rulebook for other than seven players.

Another method of play for two players involves giving each player a country fairly close to his enemy, say Germany and Austria or France and England. All the other Great Power centers are set up as usual, while minor country centers may be open or occupied, depending on whether you prefer a fast or slow game. The difference between straight *DIPLOMACY* and this version is that when a neutral unit is dislodged, it is not automatically eliminated, but is randomly re-treated to a legal retreat space if one is available.

The final one-on-one version involves control of minor units each season without regard for neutral countries. Each season, including adjustments, each player may write one order for a neutral unit per center he owned at the end of the previous year. Thus, in Spring 1901 an English player can write three orders for neutral units. The same order may be written more than once. When orders are revealed, each neutral unit is moved according to the majority of orders, not doing anything if there is a tie. For example, England might order F Bre-Mid, F Bre-Mid, and A Mun-Tyr. His opponent orders A Mun-Bur, F Bre-Eng, and F Hol-Nths. The italicized orders are not executed, Mun because there is a tie, Bre-Eng because Bre-Mid was ordered more times.

Remember that these are only basic versions. They can be combined or added to at the discretion of the players.



MIDWAY BY MAIL

by Tom Cragg

In most simulation games the complete disposition of the opposition lays before you, but a feature of most naval games is the *lack* of such intelligence, creating an important aspect of the game—the search phase. Face to face (FTF) competition in *MIDWAY* can tell the opponent what regions to avoid by hearing what regions the enemy is calling out in his search patterns. In *JUTLAND* it's even worse in that no hex can be called out in many of the variations without something in the hex, thus telegraphing where your forces are. By mail, however, with a third party all of these problems disappear.

I've played a number of games of *MIDWAY* and *JUTLAND* using a third party, which generates a much more realistic game—adding the problem of not knowing the other player's search pattern until you've been found. This eliminates (especially in *JUTLAND*) a player's ability to deduce an enemy's position from his search pattern.

In *MIDWAY* the third party (hereafter called the UMPIRE) receives information from both players and informs them if anything was found. Neither side knows the whereabouts or ready condition, or what squares to avoid because of a search pattern, which approaches the real situation more realistically. The honesty problem no longer rests with the players, but with the umpire. This should be easier to control as he should have a less vested interest in the outcome, and can be checked upon later. The same thing applies if the umpire conducts the die rolls. This enables a naval game to be played by mail with the player-honesty problem minimized and the game realism maximized. This is also true of the battles, as will be seen later.

Some slight rule changes are possible which makes for realism, such as:

1. Any air search is directed to a specific *zone*. The region searched is that zone plus all others adjacent thereto. This prevents one from increasing his search range falsely by barely making the edge of an area and calling out the whole area. An example: JAP. player at B4D can search (maximum range) to F4D. Instead of calling out F4, he calls F4D to the umpire where the search will be F4D and each adjacent zone; F4B, F4E, F4H, E4I, F4G, E4C, E4F, and F4A.

2. Ship search is *automatic*. One is normally hesitant to call many ship searches for fear of telegraphing his position to the enemy. No such problem exists with this version. Also eliminated is the possibility of two opponent's Task Forces (TF's) crossing the same or ending in the same zone without knowledge of the other's presence since neither player called out that search square. This is especially useful during night searches. Night ship search should be confined to only the occupied zones or those passed through at the same time.

3. Distribution of defensive fire from ships is assigned at the *beginning* of the battle and is not altered until the battle is over (or for a second wave if wave attacks have been agreed to). Many times in FTF if a bad result came on an early die roll one changes his subsequent gunnery assignments to save some ship of great value. In real battle all of this would be essentially simultaneous and all gun assignments would be carried out regardless of hits obtained.

4. Abortion of attacks are permissible, but fighters must fight anyway. *No* abortion of attacks on Midway are permitted (Question 5 under "Midway" in standard rules appendix).

5. US player may leave the board only on the *east* side, and only after his CV's have sailed west of Midway *and* has undergone at least one attack on his CV Force. Sometimes the question arises as to what constitutes his CV force? If the US has two TF's operating, does an attack on one satisfy this rule to the extent that the *other* TF can leave also? It seems easier to allow the players to rule on this at the beginning of the game by mutual agreement rather than tangle the rules into a host of possibilities which border on the ridiculous. There's little argument if all 3 CV's are in one TF and it gets attacked, and at sometime they had sailed west of Midway that the rule for leaving the board has been satisfied. Other possibilities should be agreed upon by the players before the game starts.

A normal game would proceed in the following fashion:

1. EACH player sends to the umpire his first move of each TF from _____ to _____, his ready state, his search zones, and his ship distribution in each TF for BOTH air or surface action so this is available to the umpire when needed.

2. The umpire then sends to each player the results of his searches and asks for each player's operation (CAP, attack, aircraft transfer, etc.). Also, he asks each player for his next move. Obviously, any changes in ship distribution, TF organization changes, and the like must be reported to the umpire at the time they are made.

3. If there are no attacks from either side during the operations part of the previous communication, the movement, ready state, and searches for the next turn are implemented; the results of which are communicated to the players.

It should be remembered that upon the completion of a move, ready state, search, and operation that one of the two hour time blocks is checked off. We are trying to combine as many possibilities into one communication as possible so as to speed up the game and minimize the amount of correspondence delays.

The game proceeds in the above manner until one side or the other decide an attack is to be made. Then the following procedure would come into play:

AIR ATTACK:

1. The ATTACKER is given the DEFENDER'S ship distribution and CAP if any. The ATTACKER then assigns his aircraft to the various targets and returns same to the umpire.

2. The umpire then sends the ATTACKER'S aircraft distribution to the DEFENDER for his defensive AA assignments for his ships (and F distribution if CAP outnumbers attacker's escort), and returns this information to the umpire. The umpire then conducts the battle and informs both players the results of each individual attack.

3. Each player then sends the umpire his adjusted ship and aircraft distribution as a result of the battle, and sends along also his next move, ready state, and search. Procedure then follows along the initial lines until an operation involves a battle.

The umpire is duty bound to keep track of the losses on both sides but will NOT inform either player of his opponent's condition except at the conclusion of a specific battle. It is up to the player to keep track of such losses for his own intelligence. If he doesn't, that's his problem and he will have to ascertain the enemy's condition from scratch.

SURFACE BATTLE:

After two opposing TF's find themselves in the same zone:

1. The umpire sends JAP. entry position on the battle board to the US player to indicate his entry position and return to the umpire. Either may try to abort, but only vessels on the last rank have the ability to abort if the right number comes up on the die (rolled by the umpire).

2. The umpire sends US distribution to the JAP. player and asks him to make his first move and remit to the umpire.

3. The umpire sends JAP. first move to the US player and asks for the first US move and any firing instructions.

4. The umpire then sends JAP. player results of US first move and fire and asks JAP. player for firing instructions and his next move. At completion of JAP. firing turn, the first move of the 4 move battle sequence is completed. The JAP. player's move is the first part of the second battle turn.

5. The umpire then sends the US player the results of his first firing turn and the JAP. firing turn and the next JAP. move. He then asks the US player for his next move and firing instructions.

The battle then continues in this fashion until one side successfully aborts, is eliminated, or end of the battle takes place. At the end of the fourth battle turn all other TF's move, ready, and search, and any group within movement range of the surface battle (if it is continuing) may move in and join the battle. The next four battle turns are handled exactly like the first round—and continues until an end of the battle is reached. One must remember also that NO air attacks are permitted on ships involved in surface action. Of course, if a group abandons they are fair game to air attack.

Again, the umpire will keep strict tabs on all hits during the surface battle and inform each player, at the end of each firing turn, what happened but it's up to the player to keep track of the results for his total intelligence as to how the game is progressing.

At any time a player may ask the umpire the state of his own forces just to be sure the record is straight. However, he does NOT receive the same information on the enemy.

An obvious game plan so that all can be involved might be for players A, B, and C to engage in three simultaneous games. Game one would pit A against C with B as umpire; game 2 would engage B against C with A as umpire; and game 3 would pit A against B with C as umpire.



FOREIGN READERS

Due to contractual obligations with our exclusive distributors we cannot accept mail orders for games from Australia, Britain, Germany, Greece, Italy or Japan. Such orders must be placed with our exclusive distributors whose addresses you'll find listed on Page 2 of this magazine. Orders for parts and airmail subscriptions to the *GENERAL* are not subject to this ban. APO and FPO addresses of U.S. servicemen likewise are *not* subject to this ban. We also urge you to get in touch with the distributor for your country in regards to placing your *GENERAL* subscription through him which in most cases will result in considerable savings for you.

THE GENERAL

Gentlemen:

John Alsen's letter was interesting and there were some things that I agree with him on. I feel as he that the quality of the games hasn't been up to par. Although the quality has always been on a high plain I feel that a little something extra is missing that makes the difference between good and very good. For example take *RUSSIAN CAMPAIGN*. Here is a fine game and a good simulation. However I don't feel that it is the last word on the Russian campaign (although I do feel that it could have been). Being a realism buff I noticed things right off that could have added to the realism of the game. It is true that these things tend to cause play to drag but they are nevertheless options I miss. My opinion is that these various rules, whether in *RUSSIAN CAMPAIGN* or any other game, could be added in an optional rules section. While this has been done to some extent in the past it has always come across as an afterthought to me. This would of course take extra time but I feel that it is one way to solve the age old *Realism vs. Playability* battle.

I do not agree with you when you say that buyers tend to find their favorite company and stick just to that one. All the gamers I know own games from several companies and play them all on a regular basis with little bias one way or the other. I own 4 versions of the battle of Gettysburg and would probably buy another one. The viewpoint of the various designers gives insight into both the game as a game and as a historical event.

I read and studied the replay of the *DIPLOMACY* game in the *GENERAL* and I enjoyed it. I do not own the game but I have played it once (much to my lasting embarrassment) and would recommend it to all of those cut throat types.

The article "First Impressions of Russian Campaign" was of great interest. Some of the author's claims on just how far the Germans can get in 1941 are a little questionable. I find as the German that Moscow is nothing less than impossible since the whole Siberian army appears on turn 2 right in front of your panzers. As the German I content myself with closing in on Leningrad in '41 (taking it in the mud months if possible). Farther to the south I never venture farther than the Vitebsk, Smolensk, Bryansk line unless I want to recreate what actually happened in front of Moscow. In the south, I find a competent Russian will let me have Kiev or Rostov but not both. A couple of 5-3s can turn Kiev into a mighty big thorn in one's side. 1942 for me is the year of Moscow.

Michael Kennedy
Azusa, CA

Ed. Note: Everybody is entitled to their opinion. Yours was just one of many which was expressed in response to Philosophy No. 58. Just to set the record straight however we did not claim that wargamers follow one company exclusively. We did say that we believe a trend in that direction is starting to make itself visible. Only the future will tell . . .



Gentlemen:

During ORIGINS II, I talked to Randy Reed about the possibility of getting revised tables for the Pzkw III G so that it would be valid for the Crusader battles. For the uninformated, the Pz III G had its upper and lower frontal hull armor increased in January 1942, using oblique armor and spare tracks. Before this, the frontal armor could be penetrated by the two-pounder, and the M6 37mm. Imagine a game where your Stuarts, Crusaders, and Matildas would be able to penetrate the frontal hull armor of the Mk III. In addition, many of the actions during Crusader were very interesting and it would then be possible to recreate them. What Randy Reed told me is that it would be far too expensive to run the computer programs to develop the necessary tables, and unfortunately, it would thus be impossible. I think that argument has been invalidated by that last Tobruk article. It would not involve too much research, and would greatly add to the game. I hope this gives you the idea for another article in the *GENERAL*. It would be greatly appreciated.

I want to criticize Avalon Hill on a specific point. As a wargamer, I am concerned about your increased emphasis on non-wargame subjects. While some may applaud it, and such an act does help the general base of your corporation, I think the purchase of the 3M line of games and the Sports Illustrated series of games will definitely hurt the Avalon Hill wargamer. It means less

Letters to the Editor . . .

money for R & D, less time and emphasis on wargames, and loss of your best designers to design non-wargames. I think the avid Avalon Hill wargamer, the person who made your company, will be hurt by this divergence of time, money, and resources. This is already seen by your internal design staff working on some kind of garbage called *BOXCARS*.

Bob Marks
Riverhead, NY

Ed. Note: Randy was right when he stated that the computer input for such a project would be too costly. We went far over our budget in type-setting expenses alone for those extra charts. We don't mind special projects occasionally but a steady diet of TOBRUK vehicle additions would be stretching it. You're not likely to see such information in the near future although you can take solace in the fact that one of our future projects is an ARNHEM game utilizing the TOBRUK game system.

As to BOXCARS being garbage, well . . . not everyone is so shortsighted as to enjoy only wargames to the exclusion of all others. BOXCARS is an enjoyable change of pace game which we've enjoyed working on every bit as much, if not more than, most wargames. Besides most of the work on this title has been done during our off hours when we play for fun—and not at the expense of wargame production.



To the Editor:

This letter is a response to the article printed in the Nov-Dec issue of 1976 on "Blind Free Kriegspiel". First let me say that Chris Crawford has done a superb job on explaining just what free kriegspiel is, and also on showing how it could be made practical in the wargaming hobby of today. I appreciate his efforts in the writing of the article, and I feel that Avalon Hill is doing the hobby a great service by introducing new ideas into wargames and wargame design.

I have done several blind *PANZER LEADER* games as an umpire, and found them to be quite refreshing from the usual wargame. As a wargamer who has tried both free and rigid systems, I am somewhat at a loss to understand why there is no "fluid" wargame; that is, a mixture of free and rigid kriegspiel. What impressed me in Mr. Crawford's article was his vehemence that wargames should be blind free and nothing else. His arguments for free kriegspiel and against structured, disciplined games sounded so good, I was tempted to believe them all. Unfortunately, the majority of the hobby will not agree with him. (Or anybody else, for that matter).

Most people I have talked to, including a mix of "Old Guard", "Average" players, and "novices", actually prefer a game with rules over one without rules. In fact, novices prefer less structured games, while experienced gamers prefer rigid kriegspiel. I tend to think that this is so because of the habits that form in a wargamer's mind after being subjected to the *3RD REICH* treatment for so long. I found one interesting thing about the wargamers I talked to. Almost all of them, hardcore and novice alike, seemed amiable towards a half-and-half system of wargame structure.

What does this mean?

A half-and-half system, or fluid system, is one where the basic concepts of the traditional wargame are present, but little else after that. Movement, for example, is a time-honored tradition that slowly disintegrates under the pressures of relentless umpires and realism. No longer can the beloved 8-6's of the old *STALINGRAD* game move 6 hexes—or can they? The umpire has so much to consider, in terms of logistics, communication, intelligence, capabilities, and HQ structure, that after a while, the "color" which was really dirt before, really is dirt despite that tinsel-trapping of the "realism" title.

The whole point of a fluid system is to have the basic tenets of a game enhanced by the umpire's imagination, intelligence, and perseverance. A game of *D-DAY* should be a game of *D-DAY*, or else it doesn't really serve the purpose it was intended to. (I refuse to define exactly what that is, for obvious reasons . . .) As an umpire, I favor three basic rules of thumb—limited intelligence, limited capabilities, and limited realism. For example, in *D-DAY*, the Allied player always knows exactly where every German division is in

France. Would Eisenhower have had this knowledge? You know that answer.

Does this mean, then, that the Allies must land without any knowledge whatsoever as to the whereabouts of the Germans? Of course not. **LIMITED INTELLIGENCE** is the key. The umpire concurs with the Allied player, and asks him to define his intelligence efforts in an area, given four scales: Full, Partial, Limited, or None. Let us say that Full intelligence (All knowledge of units on the area's beaches and two hexes inland) costs 4 Intelligence Points, while No Intelligence (NO intelligence!) costs 0 IPs. Give the Allied player, say, 15 IPs for all 7 areas. Perhaps an umpire would not care for this rule, but that is strictly individual preference. The important thing is to decide on concepts, and make damn sure the players know what the umpire might pull on them. This is the compromise that will prove to be the most successful. As far as I can see, the only drawback to a fluid system design is that it demands a minimum of three players.

Is this all that much of a drawback, however? It seems to me that PBM fluid games would be fantastic, especially with limited intelligence rules such as: No unit within two hexes of an enemy unit may be hidden, but all units outside the 2 hex range may be moved secretly. That would certainly put the "blitz" back in a *BLITZKRIEG* game. However, that line's been used already . . .

The umpire could assign a value of (4)-(4)-(4) to each German infantry division in *STALINGRAD*. The German player attacks with it, and the umpire reveals an—ahah!—5-5-4. But when that German player attempts to move it, he finds that it is now a—huh?—5-5-3. Since this unit has been in the line for 6 months straight, a Russian commander counterattacks and reveals the 5-5-3 to be a 5-2-3. The German oberkommandant pulls the unit out of the line and in a month, it becomes a 5-4-6 unit, mechanized. So you see, being an umpire really is a great deal of fun. The players have fun, and yet still stay within the basic feel of a "Stalingrad" *STALINGRAD* game.

I haven't even mentioned combat yet, and I don't think I will either because this letter is getting too long and involved. Suffice it to say that while there will always be "Conservative, old-guard, hard-core" wargamers, and will always be "Liberal, innovative, uninhibited" wargamers, there will also be "Middle-of-the-road, flexible, intelligent" wargamers as well.

I'm one of them.

Adam L. Gruen
Harrison, NY



Dear GENERAL:

I have to concur with several preliminary comments in your article, "The Best Alternative to Play Balance" in Vol. 13, No. 5. One of the consequences of the mushrooming popularity of wargaming is the surfeit of new games. With the spectrum of fine games that Avalon Hill publishes, an aficionado of a particular game or two may have to read several issues of *THE GENERAL* before coming across an article on his adopted favorite. In his Letter to the Editor, Mr. Shalvay in the same issue discusses the problem again: it is indeed Future Shock.

The problem can be compounded if someone—like this writer—is a late comer to the hobby. Not only must he wade through several issues before he finds a substantial article or two, but past issues with relevant articles are generally not available.

It was, therefore, heartening to see that you have taken the bull by the proverbial horns and have compiled all pertinent articles regarding a particular game (*PANZERBLITZ*, as a start) into a single publication. I hope you include replay series in the publication, and I hope to see more of such publications compiled on other games.

Gerard P. Verzaal
Cartersville, GA 30120

Editor's note—This is just one of many requests for a follow-up to The Wargamer's Guide Series. The response to The Wargamer's Guide to PANZERBLITZ has been so outstanding that we will indeed print more of these booklets in the future on other popular Avalon Hill games. Your letter seems to best sum up the need for this type of material.

Sir:

I would like to make a few clarifications on the scenarios in "Wooden Ships vs. Europe" (Vol. 13, No. 2):

Scenario 25: There are no special victory conditions.

Scenario 27: The British player may optionally deploy 7 ships behind each of his two flagships, *MONARCH* and *VENERABLE*.

Scenario 28: Special Rule F should not be construed to mean that Danish ships can enter land hexes. Neither fleet may do so.

Scenario 29C: Maximum range of voluntary fire, under night rules, is 5. Ships fire at rigging only at ranges of 4-5 hexes.

Scenario 31: If *USS PRESIDENT* somehow escapes, the game is a draw. Because of its damage, it was probably going to have to abandon its mission and put into port.

Scenario 32: The Allied fleet enters on board-edge 2-3. Also, to foster play-balance, players may optionally delete Special Rule B.

The "Rules of Engagement" are separate from Scenario 32 and may optionally pertain to any *WS&IM* scenario.

Players are reminded that there are no fixed time limits, i.e., in number of turns, in any *WS&IM* scenarios, including mine. Particularly with Scenarios 25 and 29A and B, players should not offer battle prematurely if conditions are adverse.

I hope that *WS&IM* players have enjoyed Scenarios 24-31 as much as I did creating them.

Robert D. Harmon
Daly City, CA



Dear Sir:

Referring to *RICHTHOFEN'S WAR*, I have an optional rule you may like. In real air combat many a pilot's life was saved (or lost) in clouds. Therefore, clouds should be accounted for somewhere. I have a solution that you may wish to improve upon. Cut a general cloud shape out of thick paper or cardboard. It should conform to the hex shapes of the board and can be any size you wish. It should be white and of such construction that light cannot pass through it. Hexes should be drawn on top for aircraft over or under the cloud to fly on. Clouds are subject to wind in the same manner as are aircraft (Optional Rule One, Prevailing Winds). Somewhere it should be noted the altitudes at which this cloud exists, such as 1000 meters to 1500 meters. When an aircraft enters the cloud, the player simply puts the aircraft under the cloud (paper or cardboard). No one can examine its location while under the cloud. However, the problem exists if another aircraft wants to enter the cloud. Therefore we must limit the number of aircraft in a cloud at any one time or make another cloud of the same size for another aircraft to use on the same place on the mapboard. When the first plane leaves, the second is temporarily removed with hex I.D. and direction written down secretly by the owning player and replaced when the first player is through. As a matter of fact, all locations should be written down to be examined later by the opposing player. Aircraft may occupy clouds for only one movement phase (unless their maximum speed won't allow them to exit, or the aircraft is in a glide). Aircraft may not operate machineguns from inside a cloud.

Eric L. Waggoner
Prospect, KY



Gentlemen:

On 27 May, 1977 at the Sheraton-Park Hotel in Washington, the Washington Science Fiction Society and the 42nd Mercenary Legion will be sponsoring Recon II, the second annual wargames session at Disclose.

There will be no programming or tournaments, but a player-placement service will be available to assist players in finding opponents. Players are also needed for a game of War In Europe. Registration through 20 May will be \$3 and \$5 at the door; send checks or money orders to:

Alexis Gilliland
4030 8th Street South
Alexandria, Virginia 22204

The player placement service is free. Send a list of games you would like to play, with your skill level for each game (1-5, 1 = worst, 5 = best) and an SASE to:

Kevin Trainor, Jr.
106 Fox Way
Forest Heights, Maryland 20021

READER BUYER'S GUIDE

TITLE: STARSHIP TROOPERS

\$10.00

SUBJECT: Tactical Science Fiction based on Robert Heinlein's novel of the same name

STARSHIP TROOPERS was the 30th game to undergo analysis in the RBG, ranking 12th with a cumulative rating of 2.67. Despite abundant kudos and top Sci Fi category ratings in other polls, the game failed to set any records in the RBG. Its best performance was in components where the game's colorful complement polled 2.07 for the 6th best rating in that category to date. The game also did well in Excitement Level, Overall Value, and Physical Quality where it rated 7th, 7th, and 8th respectively.

Of most importance to us was the 10th and 11th best performance in Completeness of Rules and Ease of Understanding categories—important figures in our continuing assessment of P.I. (Programmed Instruction) for use in multi-scenario games.

The worst consumer marks came in Play Balance where it ranked 21st. Equally disappointing was an 18th best showing in Mapboard despite a super multi-color graphics job. The poor ratings both here and in the Realism (17th) category may well be reflections of the distaste exhibited by those not enthralled with games of a non-historical nature.

The playing time, as in all scenario games, is subject to change depending on the scenario played.

WHAT THE NUMBERS MEAN: Put simply, the results can be considered like this: Anything under 2.00 is pretty darn fantastic. Scores ranging from 2-3 are excellent while 3's must be considered good. 4 through 4.5 would be considered fair, with the upper half of the 4.5 combination considered poor. Anything rated higher than a 6 indicates a dire deficiency and should merit either immediate attempts at redesign or dropping from the line. As you can see, what happens to the game after initial release is in large part up to you. If there are dire deficiencies we are relying on the RBG to spot them.

1. Physical Quality	2.27
2. Mapboard	3.11
3. Components	2.07
4. Ease of Understanding	2.43
5. Completeness of Rules	2.70
6. Play Balance	3.57
7. Realism	3.39
8. Excitement Level	2.20
9. Overall Value	2.32
10. Game Length	2 hr., 53 min.

THE QUESTION BOX

STARSHIP TROOPERS

Movement:

Q: May Alien units always move a minimum of one hex per turn on rough and/or barren terrain?

A: NO. See SCI.C.9., p.4.

Q: Can Arachnid Engineers move in the same player segment in which they create a breach?

A: Yes.

Q: Does the presence of Alien units in the same hex inhibit one- or two-man carries of WIA's?

A: No.

Q: Can a unit making a one-man carry use extended jump? Two-man carry?

A: Yes, in both cases (at half movement allowance, of course, for the two-man carry.)

Q: When is a unit unloaded from an Air Car?

A: During the special function phase.

Q: What happens to a Retrieval Boat if its beacon is destroyed?

A: On the turn of landing, the Terran player immediately rolls again for Direction of Launch and Drift using the original location of the Beacon as the reference point. This determines a new landing hex. If the new landing hex is a RAD area, the Boat is considered destroyed and the Terrans non-retrieved.

Q: Since Heavy Damaged Terran units cannot engage in close combat, can they enter Tunnel hexes?

A: Yes, since they cannot attack, they simply stop whenever they enter a tunnel hex containing enemy units.

Tunnels:

Q: Must primary tunnels extend from the cell hexside opposite the Queen cell or may it extend from any of the three possible hexsides?

A: It may extend from any of the three possible hexsides if it does not intersect another primary tunnel.

Q: May two different tunnels intersect without connecting in a hex?

A: NO!!

Q: Can tunnel segments be positioned to form a loop within one tunnel system?

A: Yes.

Q: Do all segments of a tunnel complex have to be drawn within the confines of the Alien map pad?

Could a primary segment extend off of the mapboard?

A: ALL tunnel segments must be drawn on the mapboard.

Q: Must the cells in an Arachnid complex be labeled 'A' through 'E' consecutively?

A: No, they may be labeled in any order.

Q: Can an Arachnid engineer both make a breach and build a new tunnel segment in the same turn?

A: No.

Q: Can HNG be used in any tunnel hexes or only in breach hexes?

A: It can be used in any tunnel hex, including those occupied by Terran units.

Q: Is a M.I. casualty captured when the Arachnid unit carrying it enters the breach hex or when it actually enters the tunnel system?

A: When it actually enters the tunnel system.

Q: Must M.I. units that enter a prisoner cell or Brain cell stop movement or may they continue on?

A: They must stop movement as though they reached the end of a tunnel.

Hidden Functions:

Q: Are Alien units inverted in all scenarios or just scenario one?

A: All.

Q: Are inverted Alien units turned face-up if Terran units enter their hex at the end of the extended jump phase?

A: Yes.

Q: Are Alien heavy weapon units that fire turned face-up?

A: Yes.

Q: If Alien units are fired upon, are they turned face-up?

A: Yes.

Q: Can an empty or loaded Air Car cause inverted enemy units to turn face-up?

A: Yes.

Q: When is the Terran SW&E carried by an M.I. unit revealed to the opposing player?

A: Only when it is used, or detonated. It is *not* revealed when a unit is attacked, nor when it is in the same hex as an enemy unit, nor when the M.I. unit suffers damage, nor when the SW&E is destroyed. Only when used!

Combat:

Q: Can a damaged M.I. unit (HVY, WIA, or KIA damage) carrying SW&E be attacked again to attempt to destroy its SW&E?

A: Yes.

Q: In scenario four, may Humanoid ranged weapons fire at a hex containing Terran units and may Terran SW&E attack a hex containing Humanoid units?

A: Yes, in both cases.

Q: Can an Air Car which hasn't loaded/unloaded be attacked by enemy heavy weapons or by enemy Close Combat?

A: Yes, to both cases.

Q: In scenario 4, can Arachnid units destroy abandoned strongpoints?

A: No.

Special Weapons and Equipment:

Q: Can Arachnid Demo charges be detonated after Close Combat, but before any Terran unit moves in the extended jump phase?

A: No. The extended jump phase commences after the first Terran unit moves for the purposes of detonation. If no Terran units move, then there is no extended jump phase.

Q: How do Terran Combat Engineers destroy Arachnid cells?

A: By placing a Demo charge next to or in the same hex as a cell. Section VI.F.I.b. on page 12 is incomplete as stated.

Q: How is Heavy Nerve Gas activated in tunnels that are not breach hexes?

A: In the same way as if it was being activated in a breach hex. The M.I. unit can activate it in the hex it occupies since it has no effect on Terran units.

Q: May DAP/DAR be activated against Arachnid units emerging from breaches during the Arachnid special function phase?

A: No, only during the Arachnid and Terran movement phases.

Q: Is the Alien player informed of which M.I. units are carrying SW&E?

A: No, only when the SW&E is used.

Q: Does RAD radiation affect subterranean units or only those on the surface?

A: Surface units only.

Q: May Arachnid Demo charges be detonated as the M.I. units are scattering on the initial drop?

A: No, only after all M.I. units have been scattered.

Q: When a C.E. Demo charge is detonated, must the Arachnid player announce what, if anything, has been destroyed?

A: No.

Q: Can Combat Engineer units exchange SW&E with each other in the same manner as M.I. units?

A: Yes.

Q: In the scenario 6 addenda, are the 21 Arachnid Demo Points for each complex or for both complexes combined?

A: Each complex receives 21 Demo Points.

Q: When using the scenario addenda, are Demo Points used in place of the Demo charges listed in the regular scenarios or are they added to them?

A: They are used in place of the information listed in the regular rules.

Q: If an Air Car loads/unloads and then moves in the same turn, is it subject to Arachnid Demo charges in the following Arachnid special function phase?

A: YES. The Air Car is returned to the hex it occupied and the Demo combat resolved. If there is no effect, the Car is returned to the hex in which it ended movement.

Miscellaneous:

Q: Do critical installation counters count towards stacking? May they be stacked together?

A: They do not count for stacking and they may be stacked together.

Q: Can a Special Talent both unload and function in the same special function phase?

A: Yes.

Q: In scenario 3 addenda, do non-retrieved M.I. units each count as 3 of the 25 Terran casualties required for Alien victory?

A: Yes. The entire beacon-Retrieval Boat-recovery cycle is used with scenario 3 addenda.

Q: In the Examples of Play, are there errors on the placement of the Arachnid Demo charges?

A: YES! The one demo charge is too close to a prisoner cell and one of the HE charges is not adjacent to a tunnel hex.

Q: Does the presence of functional M.I. units in the same hex inhibit Arachnid capture of wounded M.I. units?

A: NO. The Arachnid unit is simply 'grabbing' the WIA unit. Note that WIA's that are being carried by other M.I. units may not be captured.

AVALON HILL RBG RATING CHART

The games are ranked by their cumulative scores which is an average of the 9 categories for each game. While it may be fairly argued that each category should not weigh equally against the others, we use it only as a generalization of overall rank. By breaking down a game's ratings into individual categories the gamer is able to discern for himself where the game is strong or weak in the qualities he values the most. Readers are reminded that the Game Length category is measured in multiples of ten minutes and that a rating of 18 would equal 3 hours.

	Cumulative	Physical Quality	Mapboard	Components	Ease of Understanding	Completeness of Rules	Play Balance	Realism	Excitement Level	Overall Value	Game Length
1. RUSSIAN CAMPAIGN	2.24	1.98	1.85	2.02	2.24	3.07	2.78	2.41	1.78	2.07	28.5
2. W.S. & I.M.	2.34	2.40	3.07	2.38	2.88	2.39	2.07	1.85	1.88	2.10	9.2
3. ANZIO	2.36	2.11	1.74	1.94	3.74	2.88	2.62	2.00	2.09	2.15	21.7
4. PANZER LEADER	2.50	2.41	2.17	2.34	3.65	2.60	2.67	2.19	2.34	2.20	13.1
5. RICHTHOFEN'S	2.52	2.28	2.62	2.12	2.63	2.94	2.60	2.66	2.39	2.45	6.0
6. 1776	2.56	2.16	1.76	2.45	3.27	2.62	3.08	2.72	2.63	2.36	33.4
7. 3rd REICH	2.57	2.12	2.47	2.34	4.15	3.22	2.59	2.24	1.95	2.05	34.9
8. PANZERBLITZ	2.58	2.00	3.00	2.03	4.03	3.00	2.66	2.05	2.07	2.05	14.0
9. KINGMAKER	2.60	2.26	2.84	2.34	2.83	3.07	1.86	3.65	2.14	2.41	20.2
10. DIPLOMACY	2.60	2.35	2.26	3.13	1.87	2.39	2.09	4.57	2.30	2.43	32.6
11. CAESAR'S LEGIONS	2.64	2.32	2.36	2.31	2.14	2.23	3.73	3.05	2.86	2.73	13.5
12. STARSHIP TROOPERS	2.67	2.27	3.11	2.07	2.43	2.70	3.57	3.39	2.20	2.32	17.3
13. CHANCELLORSVILLE	2.68	2.62	2.57	2.45	2.26	2.52	3.43	3.07	2.55	2.64	18.8
14. FRANCE 1940	2.82	1.75	2.05	1.85	3.30	3.25	4.05	3.00	3.40	2.75	16.0
15. JUTLAND	2.83	2.84	—	2.39	3.27	3.06	3.24	2.53	2.61	2.67	29.7
16. LUFTWAFFE	2.87	2.41	2.91	2.04	2.86	3.02	3.73	3.41	2.82	2.64	24.2
17. MIDWAY	2.88	2.75	3.12	2.56	2.78	2.90	3.66	3.08	2.37	2.73	15.7
18. AFRIKA KORPS	2.90	3.04	3.10	2.92	2.12	2.29	3.39	3.57	2.91	2.77	13.5
19. ALEXANDER	2.93	2.99	3.21	3.19	2.55	2.98	3.43	2.76	2.43	2.86	12.7
20. ORIGINS OF WW II	2.98	2.69	2.58	2.80	2.00	2.22	4.00	4.06	3.11	3.40	9.6
21. BLITZKRIEG	3.09	3.39	3.28	3.30	3.14	2.89	2.25	3.67	2.81	3.05	24.0
22. TOBRUK	3.10	2.85	4.68	2.13	4.32	2.77	3.06	2.11	3.00	2.96	21.6
23. WATERLOO	3.18	3.29	3.27	3.11	2.01	3.11	3.27	4.32	3.21	3.01	16.2
24. BULGE	3.21	2.93	2.80	3.31	3.08	3.40	3.53	4.11	2.81	2.95	20.0
25. D-DAY	3.43	3.72	4.54	3.69	2.56	3.09	4.38	4.50	3.60	3.56	17.8
26. STALINGRAD	3.44	3.43	3.74	3.40	2.07	2.52	4.37	5.15	3.28	3.04	20.0
27. TACTICS II	3.51	3.43	4.30	3.59	1.45	2.18	2.32	5.57	4.59	4.20	11.6
28. 1914	3.87	3.18	3.40	3.26	5.46	4.32	3.86	1.95	5.48	3.86	55.0
29. GETTYSBURG	3.88	3.59	3.84	3.54	2.68	3.39	5.08	4.51	4.34	3.98	12.5
30. KRIEGSPIEL	4.04	3.77	4.20	3.85	2.13	2.94	2.93	6.09	5.20	5.29	9.8

Vol. 13, No. 5 polled a 3.31 rating overall with individual articles faring as follows on the 1200 point maximum scoring system:

AFRIKA KORPS Series Replay	289
Battles in Germany, 1948	209
Rules Expansion for W.S.&I.M.	206
Europe and the Pacific	197
Best Alternative to Play Balance	82
Campaign Fredericksburg	74
Game Theory and 1776	47
A Closer Look at Riechhofen's War	41
Avalon Hill Philosophy	30
Design Analysis—The Leftovers	25

Avalon Hill representatives Tom Shaw, Randall Reed, and Richard Hamblen will be attending Michi Con VI June 3rd-5th as the guests of the sponsors. In addition to manning an Avalon Hill booth and hosting several seminars, they will be in charge of tournaments in *TOBRUK*, *WAR AT SEA*, *KINGMAKER*, *DIPLOMACY*, *THIRD REICH*, *FOOTBALL STRATEGY*, *RICHTHOFEN'S WAR*, and the AH Classics. Further information is available from William Niebling, 707 Whittier Ct., C, Saline, MI 48176.

Interest Group Baltimore and Avalon Hill will be sponsoring a charter bus to ORIGINS '77 in New York. The bus will leave the Baltimore area on Friday, July 22nd and return Sunday night July 24th. Meals and lodging must be arranged separately by each individual with the convention authorities. Those interested in this transportation should send a stamped, self-addressed envelope to Avalon Hill marked to the attention of Don Greenwood/Origins Charter Bus.

TORONTOCON will be held May 14 & 15th, 1977 at the Lord Simcoe Hotel in downtown Toronto. This will be combination Diplomacy/Wargaming convention with the major feature being a two round (6 hr/day) *DIPLOMACY* tournament. Admission is \$5 for two days and further information can be obtained by writing: Andy Webber, 20 Graydon Hall Dr., #204, Don Mills, Ontario M3A 2Z9.

The Kaiser War Gamers Society is another group with their act together. They meet every Saturday at noon in the Kaiser Steel Recreation Center in Fontana, CA. Besides having numerous convention and athletic facilities available for their use they boast a 30' x 18' sand table for miniatures battles and a check-out game library of some fifty titles. A mammoth *JUTLAND* reenactment is planned for the weekend of May 28th. Further information is available from Newton H. Wickstrom, 8195 Pepper, Fontana, CA 92335.

Brian Houston informs us that the "Organization of Rochester Combat Simulators" is attempting to start their own con—"The Minnesota Campaign" on June 4th and 5th in Rochester, MN. Interested parties should contact Brian at their P.O. Box 6603, Rochester, MN 55901 address.

WARGY IV, the fourth Nebraska wargame convention, will be held in the Student Center of Platte College in Columbus, NE over the weekend of June 11-12. Inquiries should be directed to the attention of Chris Crawford at his 1766 26th Ave., Columbus, NE address.

The CSUN Simulation Gamers Association is sponsoring GLASC-II at the Northridge Campus of The California State University on

Infiltrator's Report

June 17-19. Among the many board game tournaments to be held will be competitions in *KINGMAKER* and *DIPLOMACY*. Admission charge is \$3 at the door. For further information contact Jim Blancher, 19536 Minnehaha St., Northridge, CA 91326.

The Junior Achievement Hall of Free Enterprise on July 15th-17th is the site of the big doings in Cincinnati this year when Cinci Con VII takes place with no less than 60 separate planned events to hold your interest. Information can be obtained from the Boardwalk Hobby Shop, 1032 Delta Ave., Cincinnati, OH 45208.

The Central Pennsylvania Strategy Club meets the first, third and fourth Saturday of every month from 10AM to 4PM at the US Army Reserve Center on 2997 North Second St. in Harrisburg. All aspects of gaming—from miniatures to sports are regularly engaged in. Interested parties should call Charlie Hickok (a charter *GENERAL* subscriber by the way) at 717-599-5603 or write Jack Thomas, 409 Cocoa Ave., Hershey, PA 17033.

John Prados, the designer of *THIRD REICH*, has announced plans for the formation of a Conflict Simulations Guild. This organization would be a professional organization of persons associated with the design and production of simulation games and the media pertaining thereto. Those who fancy themselves as such are urged to attend an Open Meeting on the subject at ORIGINS this July.

Rodger McGowan, our coveted chief illustrator, also edits a pretty slick magazine of his own entitled *FIRE & MOVEMENT* which covers the entire spectrum of board wargaming. AH fans will usually find an article or two dealing with AH games in each issue. Those interested should write: Baron Publishing Co., P.O. Box 820, La Puente, CA 91747 for further information.

On January 10 Elizabeth Phyllis Reed became Avalon Hill's newest release. All reviewers report the packaging to be exquisite albeit a bit messy at times. Both mother and designer are doing fine.

(Sigh.) It just goes to show that puzzles are not easy to compose. Oh, the answer to PUZZLE No. 74 we printed last issue was correct, all right—it just turns out that there are other correct solutions, all built around using archers to AV the 1st and 2nd Chariots and then pouring through the hole at N9 (you have to be careful to arrange it so you are moving through skirmishers when you are moving through your own fully occupied hexes, however.)

A number of rules errors came up in the solutions we received, so if you're wondering why you lost, this might explain it: the sequence of movement is crucial in Alexander, units must move in order, legally; a meleed unit must stay in position and attack one of the units it is meleeing with (it can avoid attacking the other only if another unit comes up and takes over the fight); a non-missile unit cannot attack through an

enemy in the front of a hex to attack an enemy in the rear of a hex—the rear enemy can be attacked only from the rear of the hex; and the skirmisher rule does not apply to hexes containing AV'd enemy units.

As a general rule, entries were rated by how many units they eliminated before the illegal move; solutions with no illegalities got preference. Since the skirmisher rule clarification has appeared only in the *GENERAL* (Volume 13, No. 1), we were more forgiving with solutions that violated only this rule.

Only Randy Chambers of Philomaton, Oregon, and James Stahler of Silver Spring, Maryland got 100% correct answers. Others receiving free merchandise included: R. Berry, Indiana, PA; T. Kuik, Grand Rapids, MI; J. Crawford, Littleton, CO; R. Dushay, Fayetteville, NY; T. Hilton, Brooklyn, NY; M. Wageler, Vancouver, BC; A. Redlack, Waterloo, ON; and C. Rosselli of Milpitas, CA.

Contest No. 75 was a mathematician's delight. In the first two problems the largest single probability is that neither side will win—i.e., that both sides will be sunk/disabled at the same time. However, the question was which side has the better chance of surviving at sea, so:

1. DRAW. The superior disabling ability of the *HOWE* balances the German's hitting power because the *HOWE* can take up to 5 damage points.

2. *RENNOWN*(3-3-6). Compare with problem 1. The loss of the fire point hurts the Germans much more, because their gunnery is 50% more efficient.

In the second pair of problems the important point is that any hit or disable result is probably enough to take care of a cruiser. A 3-5-7 causes an average of 1 1/2 hits/disabled when intact, 1 hits/disabled when damaged; a damaged 4-9-6 causes 1 1/3; an intact 2-2-5 causes 1—but it gets proportionally more hits, which the cruiser has a better chance of surviving (a disabled causes the cruiser to lose automatically, after all). Thus:

3. *SCHARNHORST* (3-5-7)

4. *GNEISENAU* (3-5-7)

An undamaged *BISMARCK* has the edge on the *WASHINGTON*, but as soon as it takes any damage at all the *WASHINGTON*'s superior disabling power dominates the fight.

5. ZERO (0)

6. 20. The probability of getting large numbers of U-Boats goes up tremendously with each ASW point when you get close to three times the number of U-Boats; the 21st ASW point raises the probability above 70%, but it takes 20 to get 50%.

7. 14.

The extra cruisers have an increased efficiency because the Germans can attack only one each round. These problems aren't even close.

8. The cruisers.

9. The cruisers.

10. 56.25%. To get to Russia a convoy must leave by turn 7 at the latest; if a convoy is disabled late in the game, or if too many are sent back earlier, the British player cannot get them all to sea in time to get to Russia. The 43.75% chance of failure includes the convoys that are sent back and ultimately have to go to Britain (or stay in the U.S.).

